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## THE JOURNAL OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

## Archaeological $\mathfrak{J n s t i t u t e}$ of $\mathfrak{A m e r i c a}$

## AMERICAN

## Journal of Archaeology

## Second Series s

The Journal of the Archaeological
Institute of America

## VOLUME XIX

1915


CONCORD，N．H．
pUBLISHED FOR THE INSTITUTE BY

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NEW YORK：THE MACMILLAN COMPANY LONDON：MACMILLAN \＆CO．，LTd．

# American Journal of Archaeology 

SECOND SERIES

The Journal of the Archaeological Institute of America

Vol. XIX, 1915
editorial figaro
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## WHO BUILT THE ARCH OF CONSTANTINE? III

## The Attic ${ }^{1}$

In the field of Roman historical reliefs the only rival to the series of eight colossal panels in the attic of the Arch of Constantine is the decoration of the arch of Trajan at Beneventum. I mean, of course, these eight supplemented by the three reliefs in the Museo dei Conservatori, making a group of eleven-a twelfth being missing-and all being supposed to have originally formed a group of twelve which decorated a monument of Marcus Aure- lius. ${ }^{2}$ Mr. Stuart Jones thought that this monument was the triumphal arch built in this emperor's honor in 176 on the Capitoline, for the double triumph over the Germans and Sarmatians. The twelve reliefs are supposed by him to depict the main episodes of this double war, and to have been arranged in groups of four on each main face of the attic and two on each end. I would entitle the eight panels on the attic as follows:
$\left.\begin{array}{lll}\begin{array}{l}\text { North Face } \\ \text { (beginning at the left) }\end{array} & \begin{array}{l}\text { 1. Adventus Augusti } \\ \text { 3. Congiarium P. R. Profectio Augusti }\end{array} \\ \text { 3. Captives before the Emperor }\end{array}\right\}$
${ }^{1}$ For previous papers see A.J.A. XVI, 1912, pp. 368 ff. and XVII, 1913, pp. 487 ff .
${ }^{2}$ Strong, Roman Sculpture, pp. 291 ff . and 392 ff.; Stuart Jones, in Papers Brit. Sch. at Rome, III; pp. 251 ff.; Petersen in Röm. Mitt. 1890, pp. 73 ff.
${ }^{3}$ The latest explanation, that this scene relates to the emperor's triumphal entrance into Rome, does not seem to me to suit the treatment of the scene, which shows the emperor and his suite about to mount horse and take to the road-which welcomes him; a scene frequent on the coins.
${ }^{4}$ There are coin types which favor both interpretations: that now commonly adopted, that the emperor is here dismissing the praetorian veterans at the end of the war, and that which seems preferable to me, that the emperor is here assigning a king to some barbarian nation, as was usually done in these wars. The type of men here portrayed does not seem to me Roman but oriental. The praetorian interpretation seems to me excluded not only on

In April-May, 1913, I was able to study the panels of the attic more closely than any archaeologist had been privileged to do, on the scaffolding built for me on the attic, as I have described in a previous article. During the course of more than a week I handled and examined every detail, and made photographs. I also examined the interior brickwork, concrete, and stonework of the attic. My conclusions did not agree with the theory of an


Figure 1.-Rellefs at East End of South Face, Arch of Constantine
(a) Adlocutio (wide frame) Lucius Verus series
(b) Lustratio (narrow frame). Marcus Aurelius series
original single arch with twelve attic reliefs, from which these eight were taken. I tried not to allow my feeling that such an overloaded attic was inherently improbable to influence my judgment. It was for internal reasons only that I felt obliged
this account, but because a careful examination of the coins shows that where the figure at the foot of the tribunal is prominent and with his back squarely turned to the emperor, and the emperor's hand is extended over his shoulder, as in the relief, the scene is invariably the presentation of a king. On the other hand, where the subject is the dismissal of the praetorians, the officer does not back squarely to the emperor; is in the background, often in smaller size, and the figures addressed are in uniform, holding standards.
to adopt the theory that these reliefs originally belonged to at least two distinct arches: one an arch erected not to Marcus Aurelius alone, but to Lucius Verus and Marcus Aurelius, for the Parthian triumph of 166 A.D.; and the other an arch built ten years later, in 176, to Marcus Aurelius alone. These reasons are as follows:
(1) If they had been all prepared for one attic, the heavy moulding which forms the frame for each one and is cut in the same immense slab, would be of uniform outline and size. This is, however, not the case, but the frames vary enormously, and do so not carelessly but so that they fall into two distinct groups, which can readily be distinguished even at a distance. This can be seen in Figure 1, which gives the two reliefs at the east end of the north face. The narrow frame is used in the right panel, the


Figure 2.-Profiles of Two Types of Frames of Panels
wide frame in the left panel. Here the upper part is much restored, but follows the original lines. It will be seen later that the division of the reliefs into two groups according to the frameoutline corresponds to that on the basis of style. In Figure 2 I give the profiles of the two types. The difference is too great to be accidental. It would alone seem sufficient to forbid deriving both groups from the same attic.
(2) There is a distinct difference in style. The two left-hand reliefs on the north face show an exquisite finish, a Hellenic idealism and a grace of attitude and movement, which are less evident in the two corresponding reliefs on the right side of the same face. The figures of Roma and Fortuna, from the Adventus (Hellenic) are given in Figure 3. The two reliefs on the extreme left and extreme right of the south face are stylistically similar to the lefthand group of the north face. This is proved, for example, in the relief on the right end by the charming Hellenic Camillus
(See Fig. 1, b. and Fig. 6). On the other hand the two other reliefs on the south face-those near the centre-are in the same more typically Roman manner of the right-hand pair on the north. A glance at Figure 1 will show another difference between the two series: the base of the left-hand relief is five centimetres lower than that of the right-hand relief. Another stylistic difference which is very marked is the treatment of beards and hair. That of the "Hellenic" series is shown in Figure 4, representing the Senate, in the Adventus scene. The figure is a fine example of the highly finished style. The beard and hair are in continu-


Figure 3.-Roma and Fortuna (Hellenic style)


Figure 4.-Senatus (Hellenic style)
ous sweeping locks, with only a moderate use of the staccato effects of the deep drill. The very different treatment of the "Roman" series can be studied in Figures 5 and 9 where the treatment is coarse, with universally deep drill work and stronger contrasts.

If we examine the framing of these groups it appears that the four "Hellenic" reliefs, if I may so refer to them, have the narrow frame, while the four "Roman" reliefs have the wide frame. This again can hardly be a coincidence.
(3) The third point will, I think, make it possible to date these two series as well as to confirm them. It has to do with the
military standards. In the extreme right-hand relief on the north face, where a barbarian chief and boy appear as suppliants before the emperor, the main, central standard has the medallion portraits of two emperors, surmounted by Victory (Fig. 5). This relief belongs to the "Roman" series. On the other hand, the extreme right-hand relief on the south face has a standard with a


Figure 6.-Heads and Standards in South 4 (Hellenic Style)

Figure 5.-Heads and Standards in North 4 (Roman style)
single imperial portrait medallion. This is one of the "Hellenic" series (Fig. 6).

Now Lucius Verus shared the empire with Marcus Aurelius (161-180) until his death in 169. Marcus Aurelius was sole, emperor from 169 till 177, when he made his own son Commodus co-Augustus. During this period two triumphs were celebrated. The first, in 166, was for the Parthian war (161-165) and was in honor of both emperors. To an arch commemorating this triumph the reliefs of the series to which the standard with the
double portrait belongs should be referred. They cannot possibly refer to the Germanic-Marcomannic wars when Marcus Aurelius ruled alone. The second triumph was in 176, seven years after the death of Verus and one year before Commodus was made Augustus. Only the series to which the standard with the single portrait belongs can be connected with this triumph; for Marcus Aurelius did not assume the title Germanicus till 172, and that of Sarmaticus not till 176.

The importance of these images of the emperors on the standards can hardly be doubted. It was to them that the soldiers swore allegiance. The well-known passages in Tacitus ${ }^{1}$ indicate that these portraits were movable and could be exchanged in the medallions on the standards on the accession of a new emperor. The presence of one or of two portraits on a standard may.be taken as absolute proof that at that time the empire was ruled by a corresponding number of emperors. So far as I know, this deduction has never been made, nor the importance of these images appreciated in their historic bearing. I have other cases where they give equally important results in the way of historic identification.

Two questions may here be asked. The first is: Why do not both emperors appear in the first series, relating, as I contend, to the Parthian war? The answer is, that although this war was carried on under the auspices of both emperors, it was only Verus who took an active part in it, Marcus Aurelius not even visiting the East. In the coins illustrating the episodes of this war Verus appears alone quite frequently. The second question is: We have in the Capitoline reliefs untouched portrait heads of Marcus Aurelius, whereas we have none of Lucius Verus. What proof is there of any Parthian arch of Verus, to which such a series of reliefs as those I imagine could have belonged? In the first place the Notitia speak of an Arcus Veri on the Via Appia, which we have every reason to believe was for the Parthian triumph, as I have proved that arches for eastern triumphs were built on the Via Appia and for northern triumphs on the Flaminia. Besides, there is a relief in the Torlonia collection belonging probably to this series, in which the emperor has always been thought to be Verus. Though I have seen a photograph of it, I have not been able to examine this relief, owing to the inaccessibility of the collection. I do not venture to assert that this relief was from

[^0]the Arcus Veri, but I do suggest that the Arcus Veri may have been despoiled to decorate the arch of Constantine.

As for the ascription to Marcus Aurelius rather than to Verus of the figure of the emperor in the various reliefs of the attic, there is not the slightest reason for it. The present imperial heads are all modern, made in 1731, for Pope Clement's restoration. For more than two, or perhaps three, centuries before that time the emperor had in each case been headless. In all probability the missing heads were of Constantine, and these were easily detached because they had themselves taken the place of other heads and had been loosely fastened on. These other heads were themselves not those of the original emperor, I believe, but a rifacimento of the latter part of the third century. This is a point which will now be cleared up, so far as is possible.

The next point is: When were these eight reliefs placed on the attic of the arch? The matter is simple enough for those who follow the old theory that the arch was built by and for Constantine; but if the arch had been in existence since the time of Domitian and the attic that we now see takes the place of the original attic that was destroyed, it becomes a question whether the attic belongs to the Constantinian restoration or to a slightly earlier one of the third century.

In so far as the structure of the attic is concerned, it has already been noted, that whereas the whole of the arch up to the attic is of solid structural marble, the attic is a hollow construction in the form of a barrel vault of rubble and brick, against which the eight carved panels were set. A study of the construction shows that it cannot be earlier than the last half of the third century; its date would range approximately from 270 to 315 , so far as can be judged from the brickwork facing. It might have been built under any emperor from Aurelian to Constantine.

The next clue is historic. The attic would be connected with a restoration of the arch due to some triumph of an emperor previous to Constantine, or to Constantine's restoration. Diocletian's triumph would be eliminated, as it was commemorated both by the Arcus Novus of the Via Lata and the pair of memorial columns in front of the Curia. The most probable occasions seem to be the triumphs of Aurelian (273) and of Probus (279).

The third clue is by far the most important. It is the head of the praetorian prefect. There are several instances of the inten-
tion of Roman sculptors of historical reliefs to give an exact portrait of the emperor's chief of staff, who was next in importance to the emperor himself in time of war. He stands close to the emperor, usually behind him; he is with him when he is on the raised platform. On the arch of Beneventum, beside fine portraits of Licinius Sura and Hadrian is one of Livianus as praetorian prefect. Out of the eight reliefs of this attic, six have the praefectus praetorio.

The reason for his absence in the other two is obvious. In one case all the figures beside the emperor in the entrance scene (North 1) are ideal figures-Virtus, Fortuna, Felicitas and Mars. There is no place for mortals. In the other case the subject is a congiarium to the people; a civil scene in which the praetorian prefect, who was a purely military functionary, took no part. His place was taken by the praefectus urbi or praefectus annonae.

In the six reliefs where the praefectus praetorio appears, the head is a portrait study of one and the same man, and this man is supposed by Mr. Jones to be M. Bassaeus Rufus, known to have been the praetorian prefect of Marcus Aurelius at the time of the Marcomannian-Sarmatian wars (168-177). But in studying this figure even from a distance I had suspected for a long time that the head had been recut and was not, as has always been supposed, the original portrait. When I was able to examine the reliefs close at hand, this suspicion became a certainty. The head had been worked over to change it from a portrait of a prefect of Marcus Aurelius or Lucius Verus ${ }^{1}$ to one of a prefect of the later emperor under whom the reliefs were placed on the attic. In only two cases was it thought necessary to change the heads, those of the emperor himself and his prefect. The rest of the figures were not important enough to count. In the case of the head of the emperor himself, as it was always in the round and at quite a distance from the background, it was easier and better to cut off the original emperor's head and substitute an entirely new head of the reigning emperor. This is what was done. But these substitutes became quite easily detached and were lost or removed before the Renaissance. It is only a conjecture to say that they were heads of Constantine; this is quite a probable conjecture, however, and Constantine may have replaced an earlier substitute, as will become evident from what

[^1]follows. On the reliefs in the Conservatori the original heads: both of Marcus Aurelius and his praetorian prefect remain.

The head of the prefect presented quite a different problem from that of the emperor when it became necessary to change it. It was not even in high relief, so that it could not be removed, but. must be recut in situ. The rest of the figure was not touched. I have photographed two of these heads, and they are given in Figures 7 and 8. Even a superficial glance will, I think, satisfy any unprejudiced observer that the technique of this head differs: radically from that of every other head in any of these attic reliefs.


Figure 7.-Recut Head Prefect in South 1 (Rex datus)


Figure 8.-Recut Head Prefect in South 2 (Captives)

This fact was granted by every one who ascended the scaffold to examine the reliefs. In Figure 9, a typical group of heads shows the technique of the original sculptor. They are in the familiar Marcus-Aurelian style. This original style shows the extreme use of the drill, with deep grooves at right angles to the surface and undercutting; with curly hair and beard; strong contrasts; dramatic expressiveness; full lips, usually parted; deep-set eyes; fairly good modelling. If we turn to the prefect's head, we find that the drill is used in quite a different way, not driven deep and at right angles but diagonally; that the only deep grooves are some that were not obliterated in the recutting in parts usually less
prominent and closer to the background; that there is no undercutting or contrast of light and shade; that the hair is cut down so as to follow, instead of concealing, the outline of the head. The mouth also has thin lips; the moustache is almost or entirely eliminated, and the lips tightly closed. There is little or no modelling of facial planes, the forehead being marked with sharp lines such as the original artist never used. The treatment is crude throughout, showing a period of decadence quite unsuited


Figure 9.-Grouf of Heads in South 1 (Roman Style)
to the age of Marcus Aurelius. ${ }^{1}$ If any one should be inclined, nevertheless, to argue that the requirements of portraiture might have forced the sculptor to a flat treatment of hair, thin lips, etc. he may be referred to the untouched head of the prefect on one of the reliefs in the Palazzo dei Conservatori, where the technique is not different from that of the rest of the reliefs. The prefect here accompanies the emperor on horseback, before whom two barbarian chiefs are kneeling. In this untouched head there is

[^2]just enough resemblance to our heads to show the common origin; how the later sculptor had to work on a face with aquiline nose, bald forehead, and rather straggling beard. I may say, also, that in the case of one of the attic reliefs, that of the Via Flaminia (North 2), the original head of the prefect, almost entirely concealed behind the emperor's head, appears to have seemed so inconspicuous as to have been left almost, if not entirely, untouched.

Granting, therefore, that in five cases out of six the head of the prefect was recut to resemble the prefect of the ruling emperor at the time of the transfer of the reliefs to the attic, does the technique of this recutting give any indication of the date when this transfer was made and, if so, how does it agree with the date indicated by the brickwork of the attic? We know that the dramatic, contrastful style of Marcus Aurelius lasted, with ever diminishing value, through the reign of Caracalla (†217). The time of Alexander Severus $(222-235)$ seems to have been transitional, with a return to delicacy of effects. Then there begins a thin, flat, dry style, with increasing loss of technical ability and life, with stippling often used in place of channelling, with shallow (instead of deep) grooves, with thin lips, flat eyebrows, eyes $\dot{a}$ fleur de tête, hair trained flat, and beard thin and hardly changing the contour of the chin. This style lapsed into crudity after the time of Claudius Gothicus (268-270). Then, under Diocletian (285-305), an abortive revival took place which continued under Constantine. It did not pervade the entire field, but by the side of inept and lifeless works, there are others, such as the base of Diocletian's memorial column in the Forum and some statues of Constantine and his family. Here we find the law of frontality and a successful use of contrasts of light and shade and a return to deep grooves outlining the figures against the background. In any case, as Constantine, immediately after his victory over Maxentius in 312, abolished the praetorian guard and the office of military praetorian prefect, it is obvious that no portrait of such a non-existent official would have been cut in his time.

Evidently there is only one point in this evolution where the recut prefect's head will fit into the scheme: the period after the death of Claudius Gothicus and before the accession of Diocletian, between 270 and 284. Sculpture was decadent, but it had not yet entirely lost the ability to portray individual traits. None of the characteristics of the styles of Diocletian and Con-
stantine are present. The period is then circumscribed to the years of the triumphs of Aurelian and Probus. Between these two triumphs I will not venture to decide. This question is of minor importance. The vital point is that this head was not recut in the time of Constantine. I consider that these five heads of the prefect, recut in the time of Aurelian or Probus, may be regarded as a conclusive proof that the attic was rebuilt at that. time and not under Constantine. Their evidence coincides with that of the historic probability and that of the structure of the attic.

A great deal has been said about Germanic and Sarmatian types and costume in connection with these reliefs, and this would militate against connecting any of them with an oriental campaign. As I cannot enter into a detailed description of the subjects in this paper, I shall merely call attention to the fact that the use of trousers and mantles of this type was common, as everybody knows, to Orientals as well as to the north-Europeans of this time. In the relief of the standard with the two imperial images, which I have considered to be the leading panel of the "Parthian" series, there are two barbarians. In the scene of the "Inauguration of the King" there are five or more barbarlans. The types, especially in the latter relief, seem to fit an oriental race as well as a Germanic race, or even better. A study of the heads from this last scene (Fig. 9) will show what I mean. Of quite a different type are the two prisoners, one with his hands tied behind his back, who are being roughly haled before the Emperor. These are of the north-European type: heavier of build and shaggier of hair.

All that I have attempted to do in this paper is to give the evidence furnished by the reliefs for dating the attic and for deciding whether they are themselves take from one or from more than one monument. A complete description will be reserved for my general volume on the arches of Rome and Italy.

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## MEDUSA II ${ }^{1}$

## The Vegetation Gorgoneion

There is a group of Medusa monuments that seems to have escaped attention. This is the more peculiar because it is a fairly numerous and homogeneous group. It is the gorgoneion with vegetation. Probably the reason for the neglect is that this juxtaposition of the gorgoneion is found almost without exception in connection with tombs; sometimes on the architecture of the tombs themselves, but much more often on sarcophagi and urns. As all critics have taken the Medusa in connection with the tomb as an emblem of suffering and death, they have found it convenient to ignore the almost constant use of vegetation symbolism with the gorgoneion in this entire class.

I shall describe the monuments first, and reserve any general considerations till the end.

The earliest work is a series of terracotta antefixes in the Etruscan Museum of the Vatican. ${ }^{2}$ They are archaistic in style and belonged, apparently, to a temple of the close of the fifth century b.c. Nine of these antefixes are preserved. In each one the head of Medusa, winged and with snakes knotted under her chin, is framed quite closely in three juxtaposed pairs of acanthus leaves that curve upward on either side. This became a classic type. There is nothing "horrible" in the type of face.

The bulk of the material of this class with which I am familiar is, however, not earlier than the third century b.c., descending to the second or third A.D. There is a wealth of it among the later works of Etruscan art, especially in chamber tombs and sepulchral urns. The most interesting instance is in the tomb of the Volumnii near Perugia. The pediment over the inner door-

[^3]way (Fig. 1) is decorated with a scene in relief centering about a peculiar form of gorgoneion. Medusa occupies the centre of a disk, the entire ground of which is filled with a scale-like arrangement of foliage radiating from the Gorgon's head to the edge of the disk. Medusa is of the beautiful type with hardly a trace of the Hellenistic pathos; the heads of the two snakes with tails tied under her chin do not stand up as usual but nestle in her hair. The foliage proceeds directly from the head; there can be no doubt whatever that it is foliage, neither can there be any doubt that it has a symbolic meaning. ${ }^{1}$


Figure 1.-Medusa as Vegetation Symbol; Gable of the Tomb of the Volumnit at Perugia (photo. Alinari)

On either flank of the disk is the curved sword or harpe, such as Perseus is usually figured as using in the decapitation. The harpe is generally conceded to be a sun emblem, especially as typical of the destructive aspect of the sun's rays. As early as ca. 2500 в.c. it was used as the weapon in the hand of the Babylonian gods. The sun-god Merodach-the counterpart of Perseus-is figured as wielding it in his fight with Tiamat, the primeval dragon. On each handle perches a dove, evidently

[^4]the symbol of Aphrodite as nature goddess. From below emerge the heads of Apollo on the left and Hermes on the right, recognizable both from their emblems and their types. The opposite pediment in the tomb of the Volumnii had a similar disk, which, had it been in good preservation, would have shown an analogous theme. It also was filled with a head, which has been broken away but which seems to have been surrounded by sun's rays within the disk in exact correspondence to the foliage of the Medusa disk. On either side of the doorway was a terracotta crested snake-the emblem of immortality.


Figure 2.-Gable in the Museum of Aquila (photo. Moscioni)

At Aquila in the Abruzzi there is a gable in the museum which bears the closest analogy to the one just described and was also evidently part of a tomb. Its central decoration is the Medusa head (Fig. 2). There is no encircling disk, but the circular scheme is adhered to in the outline of the mass of foliage, though it radiates only sporadically and irregularly. The two snakes are disposed in heraldic fashion above the head, and the pair of wings in the hair is curiously foliated rather than feathered. The idea of vegetation and fertility is emphasized by the two vases flanking the Gorgon and completing the theme. The difference between this theme and that of the tomb of the Volumnii is that here only one side of the Gorgon's activity-the productive-is featured. It is not easy to date this work; it
would seem to have the earmarks of a local, non-Etruscan, preRoman school not earlier than the third century b.c. ${ }^{1}$

Passing from the field of funerary architecture to that of funerary urns, we find a considerable group of late Etruscan works of the vegetation Medusa type scattered through the museums of Chiusi, Volterra, Perugia, etc., showing that it was not a local but a general theme. It does not extend, however, beyond the field of Hellenic influence. There is, for instance, no trace of Medusa in any form in the tomb furniture, not even in the funerary stelae of the Etruscan necropoli of Bologna or any other centre north of a certain line in Etruria proper.


Figure 3.-Etruscan Urn in the Museum of Chiusi (photo. Moscioni)
A fairly typical specimen of very summary workmanship is the travertine urn in the museum of Chiusi given in Figure 3. The winged gorgoneion, with two flamboyant knotted snakes and flanked by two dolphins (Apolline symbols), is sēt in a triple nest of rich plant life of crude execution. With this composition we return to the arrangement illustrated by the first work that was mentioned, the antefixes of the Vatican museum. Two

[^5]urns still in the tomb at Chiusi called Deposito del Gran Duca, have almost identical themes, better carried out.

There is a peculiar variant in the same museum (Chiusi), given in Figure 4, where two fronds shoot symmetrically from Medusa's neck, two serpents from her ears, and two wings from back of her temples.

Central Medusa heads on funerary urns, enclosed in foliage are, for example, Cat. Nos. 28, 30, 397, and 476 at the Volterra museum; Cat. Nos. 134, 335, 797, 1057, etc. at the Chiusi museum; Cat. Nos. 66, 68, and many more at the Perugia museum.

In none of these works is there anything horrible, monstrous, or in any way terrifying or repulsive about the Medusa. She is


Figure 4.-Etruscan Urn in the Museum of Chiusi (photo. Moscioni)
serene, normal in feature, without protruding tongue or tusks or gleaming teeth. Her mouth is not open; her face is without the extreme solar rotundity that Greek art ordinarily gave to it, as did also early Etruscan art. The reason, we shall see, was probably that this rotundity was due to an association with the sundisk, which is not present in this vegetation aspect of Medusa.

As was the case with so many other features of the technique and themes of sculpture, Roman imperial art appears to have borrowed directly from the Etruscans the sepulchral Medusa. With the emphasis given to the reality of the future life by Etruscan theology, an emphasis probably of Oriental origin and transcending anything that we find in the Hellenic world except in the fields of Pythagorean and Orphic thought, it was natural that Etruscan art should have seized with avidity the main,
simple, Hellenic emblem for life-force and immortality, the Medusa. The Etruscans applied the emblem to the resurgence of life beyond the grave, as well as to the resurgence of life on earth in the spring. This aspect of the Medusa was echoed in Roman art.

A simple Roman form of the theme is on an urn in the museum of Palermo, given in Figure 5, where a distinctly Hellenistic Medusa is framed in a heavy festoon of varied fruits held by two charming Cupids. In the Vatican sarcophagus $806\left(\mathrm{H}^{2}, 1208\right)$, which has two garlands enclosing Medusa masks, the two Cupids are supplemented by a satyr, in the centre. This is one of the nor-


Figure 5.-Roman Urn in the Museum of Palermo (local photo.)
mal forms assumed in the Roman period by the vegetation-fruit emblem. It is no longer formed of growing or simple vegetable forms but of artificially arranged festoons of fruits, flowers, and fronds, or of cornucopias and baskets filled and overflowing with them. The festoon appears, with accessories that clearly illustrate the meaning of the theme, in a number of altar-shaped urns. In the urn of Figure 6, beside the two Cupids holding the festoon of fruits that frames the gorgoneion, there is a pair of eagles whose connection with apotheosis and life beyond the grave makes their presence peculiarly appropriate. The type of Gorgon here is of the intense Hellenistic solar sort, with unusually open mouth. In another altar-urn in the Vatican, that of Petronius Secundus (Fig. 7), the type is not exaggerated, and the place of the eagles is taken by the swans; whose connec-
tion with Apollo and immortality is also clear. The same birds are feeding below, as in the other urn.

An intermediate type is on a tripod in the Vatican museum, of which a detail is given in Figure 8 to illustrate how the fruit wreath is combined with the Medusa head in other classes of monuments besides the funerary. Of course no one could for a moment argue that either the Gorgons on the bowl or the tripod or the garland of fruit below it have any funereal significance!


Figure 6.-Urn in the Vatican Museum (photo. Moscioni)

The festoons that were used in Apollo ceremonials are known to have a special significance as emblems of the fruitfulness of which Apollo was the propagator, lord as he was of the firstfruits of the earth, in imitation of Dionysus and Triptolemus.

In connection with these Apolline characteristics it is important to note the association of Medusa with the Apolline griffinalso an emblem of eternity. This is to be found as early as the fourth or third centuries on Etruscan urns. In urn 78485 of the Florence museum, from the Tomba Inghirami, the entire decoration consists of a gorgoneion between two griffins, where Medusa takes the place of the more usual central vase: the same theme appears in No. 190 of the Etruscan Museum in Florence.

As an indication that it was a common idea to associate fruit and fruitfulness with funerary urns even before Imperial Roman times I will give (Fig. 9) an Etrusco-Roman terracotta urn from Toscanella, in the Etruscan Múseum at Florence, where the most characteristic symbol of productivity, the dove, is combined with fruit on the whole decoration of the sarcophagus. The late Hellenic influence is evident, and it is an excellent instance of the cosmopolitanism of the period of the Gracchi.

A simplification of the vegetation theme is illustrated by No. 5540 of the museum at Florence, a late Etruscan urn where the head rises from a neck-rest of three acanthus leaves, while two snakes are heraldically set on the top of her head and she is flanked by two trees from which she is separated by Ionic


Figure 7.-Altar Urn in the Vatican Museum (photo. Moscioni)
columns. The combination of serpent and vegetation was also sometimes made at this time (ca. third century b.c.) in the full figure as well as the gorgoneion. In the same museum, for example, No. 4969 is a charming half-figure in terracotta, with arms extended, each holding a sheaf of wheat, while on each side a serpent projects and then curves upward and back toward her neck. ${ }^{1}$

Still another form is that in which the gorgoneion is supplemented not by garlands, but by baskets of fruit which either stand upright, as in the Aquila pediment, or are tilted so that the fruit is being poured out on the ground. This occurs, for example, in a sarcophagus in the Louvre (Clarac, 192, 535), on the Lateran sarcophagus of Gladia Primitiva (No. 861), etc.
${ }^{1}$ Similar figures are in the Etruscan Museum at the Vatican, in the Museo delle Terme, etc.

In the latter case the busts of the two deceased inside their medallion rest on a Medusa head with extended wings. Two Victories hold the medallion; on either side are the overturned baskets of fruit and two genii with torches. The gorgoneia in these types of compositions are so numerous during the two first two centuries A.D. that it would be needless to give a list of them. They can be found in the catalogues of Dütschke or Matz-Duhn, in Reinach's Répertoire, and in museum catalogues. The figures associated with the Gorgon in these vegetation compositions are dolphins, griffins, sphinxes, eagles, doves, swans and other birds, Victories, centaurs, satyrs and Erotes. Sometimes the


Figure 8.-Tripod in the Vatican Museum (photo. Moscioni)
Erotes hold horns of plenty. Recurring to the baskets of fruit, they seem to represent without doubt, in Roman dress, the liknon of the Eleusinian mysteries; the harvest basket containing the first fruits of the earth, which became one of the main mystic emblems of fertility and consequently of the Great Mother and then of Dionysus. In the initiation ceremonies of the Liknophoria the sacred basket filled with fruit was used as an important part of the ritual. It was also in use as a symbol at Delphi, being drafted into the service of Apollo, and it also became part of Orphic ritual. ${ }^{1}$ Its use therefore in Medusa scenes goes back to early prototypes.
${ }^{1}$ See the development of this theme in Miss Harrison's Prolegomena to the Study of Greek Religion.

As a last, crowning example (Fig. 10), I reproduce a littleknown but particularly beautiful and large sarcophagus, now in the Walters collection in Baltimore. It is one of the famous group found in the mausoleum of the Licinii (Rome) and was the tomb of a military leader of the time of Trajan or Hadrian. The gorgoneion is the central figure on both body and cover. It rests below on a growing palm tree, above on two horns of plenty. Vases overflowing with fruits stand on either side. Captives, trophies, and arms refer to the occupation and victories of the deceased. Winged victories and cupids occupy the bulk of the scenes.

It is hard to see how justification can be found for any of the current theories to explain the frequent use of the gorgoneion in the decoration of tombs, sepulchral urns, and sarcophagi.


Figure 9.-Detarl of Terracotta Urn; Etruscan Musedm, Florence
These theories are that the Gorgon was used as an emblem of death or of pain, or as a protecting evil bogey. But if preconceptions are laid aside, and if the plain evidence of the monuments is alone admitted, the law of the association of ideas would seem to lead inevitably to just the contrary conclusion. Eros, the god of life, the dove of fertility, the Victories, the eagle and griffin of apotheosis, the first-fruits of the earth in the sacred basket or the horn of plenty; these and the rest all point to the Gorgon as the emblem of life, of victory over death, and of renewed life beyond the grave.

This group, will, I hope, help to destroy the delusion that Medusa's fundamental characteristic was apotropaic. This is a characteristic that not only was not fundamental but is nonexistent. She protected not negatively but positively. This, however, is a theme for later consideration.
A. L. Frothingham.

[^6]

Figure '10.-Sarcophagus in the Walters Collection in Baltimore

# Arctjaeological <br> Jnstitute <br> of $\mathfrak{A m e r i c a}$ 

## THE TOMB OF ILARIA DEL CARRETTO

The tomb of Ilaria (Fig. 1), after suffering some vicissitudes, has found a permanent resting place in the left transept of the cathedral of Lucca. It has been much admired by Ruskin ${ }^{1}$ and other visitors to the cathedral and has figured in all histories of Italian sculpture from the time of Vasari to the present day. The lady to whom it was dedicated was the daughter of Carlo, Marchese del Carretto, of an old and powerful family, the second wife of Paolo Guinigi, who in the early fifteenth century was at first the popular, then the hated tyrant of Lucca. It is natural to think that Paolo erected the tomb in his wife's honor soon after her death on December 8th, 1405. The date 1406 is assigned to it by Ridolfi ${ }^{2}$ and Venturi, ${ }^{3}$ by Burckhardt, ${ }^{4}$ Bode, ${ }^{5}$ Burger, ${ }^{6}$ Fabriczy, ${ }^{7}$ Cornelius, ${ }^{8}$ Marcel Reymond, ${ }^{9}$ André Michel, ${ }^{10}$ and others.

Milanesi assigns the tomb to the year 1413. In his edition of Vasari's Vite, ${ }^{11}$ he asserts in this connection "Secondo un documento ch'è presso di noi, parrebbe che Jacopo larvorasse quella sepoltura intorno al 1413." A document giving these statements as facts would be most important not merely for the date but also for the name of the sculptor. But from the guarded manner of Milanesi's assertion it seems possible that he is not reporting a fact but making an inference founded on Jacopo's presence in Lucca in the year 1413. If a document with explicit evidence on this subject actually exists, it is most regrettable

[^7]that neither Milanesi nor his successors Borghesi and Banci published it in the Documenti per la Storia dell'Arte Senese, where they published many documents concerning the work of Jacopodella Quercia.

An earlier date for the monument should be assigned by those who follow the sequence of events given by Vasari. He says in his life of Jacopo della Quercia that that artist went from Siena to Lucca, and after carving the Ilaria tomb went to Florence and entered the competition for the bronze doors of the Baptistery.


Figure 1.-Tomb of Ilaria del Carretto, Lucca
As this contest took place in the year 1401, the tomb of Ilaria would have to be dated at least four years before her death.

As for the date, I am inclined to believe that the original monument, whatever its form, was erected in 1406, if for no other reason than that by 1407 Paolo Guinigi married his third wife, Piacentina, and in 1418 his fourth, Jacopa Trinci, and that it would doubtless have suited his convenience to have each wife properly disposed of before he married again.

Let us then suppose that Ilaria was suitably entombed in 1406; a second problem confronts us. Is the tomb as it stands the handiwork of Jacopo della Quercia? This attribution is, so far as I know, universal, and the beautiful tomb has contributed largely
to the reputation which Jacopo della Quercia has sustained as one of the founders of Renaissance sculpture. Let us examine the the evidence on which it rests. Paolo Guinigi had as a chronicler gonfaloniere Giovanni Sercambi, whose Croniche have been published by Salvatore Bongi, Lucca, 1892. Sercambi describes the death of Ilaria, but makes no allusion to her tomb. Bongi, on p. 413 of Parte Seconda of this work, adds the following note: "Nel codice originale da noi seguito, in margine a questo capitolo della morte della seconda moglie di Paolo (Guinigi) si trova la seguente postella di scrittura del cinquecento inoltranto: 'Nota come la statua di marmo che è nella sagrestia di San Martino la fece fare il Sig. Paolo per la detta madonna Ilaria, ed è di mano di Iacopo della Quercia senese scultore illustre.'" This attribution to Jacopo della Quercia is not that of the chronicler of the house of Guinigi, as André Michel asserts, ${ }^{1}$ but of a marginal annotator of the late sixteenth century. This annotator doubtless derived his information from Vasari, whose book was published first in 1550 , and a second edition in 1568 . Vasari speaks of the bellezza della figura and of the base on which are putti with festoons, indicating that the monument we see today is essentially that which he may have seen in 1550. The attribution to Jacopo della Quercia dates apparently from Vasari's somewhat untrustworthy account of that sculptor. As Vasari erred when with great positiveness he assigned to Jacopo della Quercia the well known relief of the Assumption over the Porta della Mandorla of the Cathedral of Florence-now proved to be by Nanni di Banco-it is not unlikely that he also erred in his attribution of the more remote Ilaria tomb. Concerning it we have no contemporary evidence. We are therefore compelled to examine the tomb in relation to the established works of Jacopo della Quercia and decide the question of authorship for ourselves on considerations of style alone. The following monuments: (1) The Trenta altar-piece at S. Frediano, Lucca (1413-1422), (2) The slab tombs of Lorenzo Trenta and his wife in the same church (1416), (3) The Fonte Gaia at Siena (1414-1418), (4) The font in the Baptistery at Siena, containing his Zacharias relief (1417-1430), (5) The portal sculptures of S. Petronio, Bologna (1425-1438), and parts of the Bentivoglio Tomb at S. Giacomo, Bologna, form a series from which the style of Jacopo della Quercia may be securely determined. In these works we may trace an obvious

[^8]continuity of style. We have only to compare the Sapienza of the Fonte Gaia with the Madonna over the portal of S. Petronio to see how closely Jacopo adhered to type. From first to last his forms are heavy, his drapery massive and full of irregular and inexpressive querks and turns. He is not a variable genius of whom we might expect the reposeful, stately figure of Ilaria to be succeeded by the labored, florid forms of the Trenta altarpiece. Classed with his works the Ilaria tomb stands out miraculously. It has no ancestors, at least not in the Sienese school from which Jacopo came, and no descendants, at least none in the cycle of Jacopo's works.


Figure 2.-Tomb of Ilaria; Head
If we take a wider survey, where else do we find in Italy tombs of this type? We can almost count upon our fingers the freestanding Italian tombs. Through the middle ages, and with few exceptions throughout the Renaissance, Italian sepulchral monuments, when erected in the churches, were built against the wall or set into the pavements. Even the Ilaria tomb, after its so-called destruction, was set up in the Cathedral as a wall tomb, and only in 1887, when the missing slab from the base came back from Florence, was it reërected as a free-standing tomb. Marcel Reymond ${ }^{1}$ in 1898 pointed out that tombs of this character do not occur in Tuscany, but are common in France. Cornelius, ${ }^{2}$

[^9]on the other hand, while pointing out its affinity with northern monuments would have us believe that it does not differ essentially from the type of its time and country. The same impression is conveyed by Ruskin. But this recumbent figure shows many features not found elsewhere in Italy. Ilaria wears a


Figure 3.-Tomb of Constanza de Anglesola; Poblet northern type of turban, her hair is bound in French style with ribbons (Fig. 2), her garment with its high, stiff collar, its large openings for the long pendant sleeves, the stiff cuffs have no parallels on Italian tombs. But French and Spanish tombs exhibit - all these details of costume. We may also notice the dog at Ilaria's feet. Vasari explains it as an emblem of fidelity, without drawing attention to its extreme rarity on Italian tombs. More than a hundred photographic reproductions of Italian tombs with recumbent figures lie before me and I find only a few isolated examples in which a dog crouches at the feet of the departed, and these in regions like Milan and Naples, where foreign influences were strong. On the other hand, in French and Spanish tombs, the dog or the lion is almost invariably present. There is still another feature which links this tomb with those of foreign origin. Etruscan, Roman, and Italian tombs of this type for the most part represent the deceased as reclining or asleep upon a funerary couch or bier with a mattress or a shroud carefully folded beneath them. Here, as in French and Spanish tombs, the lady lies upon the bare slab, with nothing but the two pillows to minister to her comfort.

I am therefore strongly inclined to affirm that this slab, in spite of its being found in an Italian town and serving as a memorial to an Italian lady, is so foreign in type that we must suppose
it to have been carved by some foreign sculptor or by an Italian sculptor with foreign training. This hypothesis gains in weight when we read of the cosmopolitan tastes of Paolo Guinigi. He had foreign architects in his employ and was a passionate collector of French goldsmith work. ${ }^{1}$ French songs were sung in the open piazza at Lucca, and French novels translated into Italian for the amusement of Paolo and his friends. ${ }^{2}$ Paolo Guinigi cultivated foreign relationships so far that he actually


Figure 4.-Tomb of Ilaria; Coat of Arms
secured Ladislaus, King of Naples, to stand as godfather and as name-father for his son. ${ }^{3}$ In order to emphasize the foreign character of this beautiful effigy of Ilaria, I would place alongside of it the sepulchral slab of Donna Constanza de Anglesola (Fig. 3) who died in 1401 and was buried in the now ruined monastery of Poblet (Catalonia). ${ }^{4}$ Where in all Italy can we find a closer parallel to the Ilaria tomb?

[^10]On the other hand the sarcophagus seems to be Italian, and would appear, indirectly or directly, to have been inspired by the remains of classic sculpture. ${ }^{1}$ It is quite conceivable that even Jacopo della Quercia may have had a hand in the carving of this sarcophagus, for somewhat similar mouldings appear in his Trenta altar-piece in S. Frediano, and foliage not unlike that which surrounds Ilaria's coat of arms, and a putto and garland motive somewhat similar to that of the sarcophagus, occur also


Figure 5.-Tomb of Ilaria; Foliated Cross
in the decoration of his Fonte Gaia at Siena. The resemblance, however, is not so close as to compel us to attribute these otherwise very different monuments to the same master mind.

This sarcophagus, so far as I know, has never been adequately published, and I shall not attempt to give it the detailed study it deserves. However, the photographs, several of which are here published for the first time, should assist in the formation of a better appreciation of the monument. Figure 4 presents Ilaria's stemma or coat-of-arms, which consists of the Guinigi insignia quartered with those of the Carretto family. The

[^11]Guinigi arms are: Gules, a cross argent charged with eighteen or twenty lance heads azure. The Carretto arms are: Or, five bendlets gules. These are here blazoned quarterly on a fine shield suspended on a hook by means of a broad strap. It is surrounded by florid Gothic plants bearing seeded flowers, suggested perhaps by Giovanni di Ambrogio's more beautiful foliage on the jambs of the Porta della Mandorla of the Cathedral of Florence. It may not be without significance that the cornice moulding of the sarcophagus with its crockets and consoles is found again in the cornices of the Porta della Mandorla. The general design of this short side of the sarcophagus is attractive in itself, but it seems not to have been composed with due relation to the reliefs on the long sides. In its present condition our sympathies are roused for the two putti whose wings are so abruptly cut away.


Figure 6.-Tomb of Ilaria; Putti
The other short side of the sarcophagus (Fig. 5), with its quatrefoil elaborated into a foliated cross, recalls also the ornaments on the architrave of the Porta della Mandorla. It may be remarked that the foliage is in higher relief than that on the opposite side, and that ample space is left for the completion of the wings of the corner putti. The absence of a patina corresponding to that on the other short side suggests that this relief may have undergone a thorough recutting.

A comparison of the long sides of the sarcophagus brings out marked differences of sentiment and of execution. On one side (Fig. 6) the putti are sad, overburdened by the garland. They are veritable funerary genii oppressed by their solemn task. The garlands are exceedingly massive, like lumps of clay on the surface of which are lightly sketched Gothic foliage and fruit. The other side (Fig. 7) breathes a freer spirit. The putti are more spirited, stepping as if in a choral dance. The garland also is treated with a lighter touch, is more plastic in form, and has a
distinctive character given to it by the long lanceolate leaves which all but conceal the fruit. If this relief seems to be in better condition than the other, this is perhaps due to its having been long preserved in the Guinigi palace at Lucca and in the Uffizi and the Museo Nazionale at Florence before being returned to its place on the sarcophagus.

There are some, but not many, points of comparison between these reliefs and the work of Jacopo della Quercia. It is unfortunate that his putti with garlands in the Fonte Gaia at Siena are so damaged, for now they seem but a faint reflection of the putti on the Ilaria tomb. Nor do Jacopo's figures of the Christ child help the comparison. Perhaps the closest analogies are to be found in the putti bearing consoles which support the architrave of the main portal of S . Petronio at Bologna. But the resem-


Figure 7.-Tomb of Ilaria; Putti
blance is altogether too vague to warrant the assertion that they are by the same hand.

As with the effigy of Ilaria, so with these putti and garlands we are dealing with the productions of a sculptor whose ideals of beauty are antagonistic to those displayed in all the authenticated works of Jacopo della Quercia. Jacopo was not the sculptor likely to have been selected by an aristocratic connoisseur to carve the image of his beautiful wife. He was essentially coarse in his conceeptions, vulgar and baroque in expression, though capable of massive and strong work. He nowhere shows the restraint, the refinement, the classic spirit displayed by the sculptor of the Ilaria tomb.

To those who have long associated with the Ilaria tomb the name of Jacopo della Quercia it may be disquieting to be asked to abandon this attribution before another sculptor's name is furnished in his place. But let us suppose that this monument were recently unearthed and unattributed, who would think of
attributing it to a Sienese sculptor and especially to Jacopo della Quercia? We should rather think of some sculptor trained in the best French traditions, whose mind was awakened also by the best sculpture of Florence-some one who admired Andrea Pisano's Baptistery Gates and Giovanni di Ambrogio's Porta della Mandorla. Is it possible that Jacopo during his stay in Florence could have received the inspiration to produce this masterpiece and then have lapsed for the rest of his life into comparative mediocrity? Is it not more likely that some other sculptor deserves the credit for this beautiful tomb? Some day, perhaps, we may be able to discover his name.

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## Arcbaeologital <br> Jnstitute <br> of $\mathfrak{A m e r i c a}$

## TOPOGRAPHICAL STUDIES AT SETIA

Two years ago, after I had completed my researches in the territory of ancient Privernum, ${ }^{1}$ I planned to study in the same manner the neighboring territory of Setia. There are two recent works on the history and remains of Setia by local antiquarians; ${ }^{2}$ but these, although they contain much valuable material, are too fanciful and unscientific. ${ }^{3}$ At the earliest opportunity, therefore, in the summer of 1912, I began my study of Setia and vicinity, intending to describe and locate accurately the existing ancient remains. On account of the season and the limited time at my disposal, I confined my attention to two points, first, the remains of the town itself, and second, the road ascending to it. The results of my researches are here briefly presented under

[^12]these two headings, to which I have added a short discussion of the inscriptions from Setia. ${ }^{1}$

## 1. The Town of Setia

Ancient Setia was situated on the hill now occupied by the town of Sezze, which rises abruptly to a height of 305.60 metres ${ }^{2}$ from the Pontine Marshes, about six kilometres to the northeast of Forum Appi and the Via Appia. There is no evidence that this was the site of an old Volscian settlement; ${ }^{3}$ our first certain information is that in 382 в.с. the Romans established a Latin colony, ${ }^{4}$ to which new colonists were added three years later. ${ }^{5}$ Its foundation, therefore, marked the farther advance of the Romans into Volscian territory, which they had already begun to secure by founding Norba in 492, quae arx in Pomptino esset. ${ }^{6}$

Only a few points in the history of Setia need be given here. In general it was loyal to the Romans, and, with Norba, suffered constantly from the incursion of the Privernates, until the latter were conquered. ${ }^{7}$ The leader of the Latin revolt of 340 в.c., L. Annius, however, was a Setine, ${ }^{8}$ and in 209 b.c. Setia was one of the twelve colonies that refused aid to the Romans. ${ }^{9}$ In 198 в.c. Carthaginian hostages were quartered here, who nearly succeeded in a serious revolt. ${ }^{10}$ We are told, on very unreliable authority, that Sulla captured Setia in 82 b.c., ${ }^{11}$ and that the triumvirs sent

[^13]a military colony here. ${ }^{1}$ The number of inscriptions found here that date from the late Republic shows that the town was then still flourishing; but under the Empire it was an exigua urbs, remembered only for its famous wine. ${ }^{2}$


Figure 1.-Plan of Sezze, showing Ancient Remains

The principal remains on this site consist of portions of the ancient town wall. As a glance at Figure 1 will show, these are very. numerous on the southwestern side. On the northern and eastern sides they are scanty, but occur in the right places to
${ }^{1}$ Liber coloniarum, 1, p. 237, in Lachmann et al., Gromatici Veteres, Vol. I. This is, however, one of the most trustworthy portions of this treatise; see Mommsen in the same work, Vol. p. 184.
${ }^{2}$ See especially Martial, XIII, 112; for other references, see Nissen, l.c.
prove that the line of the mediaeval and modern walls generally follows that of the ancient wall.

Starting at the Porta Pascibella, we find our first piece of ancient wall adjoining the gate on two sides of the church of S . Parasceve (Fig. 1, 1). Inside the gate, it is built into the northern wall of the church for a length of 12.30 m . and a height of 2.70 m . Then, after a gap of 2.50 m ., in which the old corner is concealed by a modern projection, it appears for about 4.10 m . on the outside of the gate, preserved to a height of about $3.75 \mathrm{~m} .{ }^{1}$ This fragment, like all the others, is built of the local limestone. It is


Figure 2.-Fragments of the Town Wall of Setia
much battered, but is apparently not in the "polygonal" but in the "quasi-ashlar" style. ${ }^{2}$

The next two fragments are not important. The first (Fig. $1,2), 12.35 \mathrm{~m}$. beyond the one just mentioned, is traceable for 23.20 m. ; it is of "polygonal" masonry, but the exact variety cannot be determined. The next fragment (Fig. 1, 3), 64.90 m . farther on, consists merely of ancient stones built into the modern wall for 9.75 m .

The first well-preserved piece of wall is 10.75 m . farther on (Fig. 1, 4; Fig, 2.) It is 37.20 m . in length and 3 m . in height.

[^14]The masonry is distinctly of the "third polygonal" style, with the blocks carefully fitted and their faces smoothed. ${ }^{1}$

Of even greater interest is the next fragment, 29 m . beyond the last one (Fig. 1, 5; Fig 3). This has at its eastern end a postern gate, 1.19 m . in width, which is now filled up to within 1.40 m . of the top; its total length is about 7 m . It is built of ashlar masonry; this practice of using ashlar masonry about the gates of polygonal walls is common elsewhere. ${ }^{2}$

After 26.50 m . more we find what may be a piece of ancient wall, 8 m . in length (Fig. 1, 6). From the end of this the distance


Figure 3.-Fragment of the Town Wall of Setia, with Postern Gate
is 23.10 m . to another battered fragment of four courses, only 1.60 m . in length (Fig. 1, 7). But then, after 15.50 m ., begins another continuous piece of the wall, 32.30 m . in length (Fig. 1, 8). The eastern half of it is of the "third polygonal" style; but the western half is of a new variety of masonry of which we shall see other examples, a "quasi-ashlar" masonry, with the surfaces of the blocks carefully rusticated, so that they resemble projecting cushions. ${ }^{3}$

Within the next 206.70 m . there exist three fragments of wall in the positions indicated on Figure 1 (9, 10, 11), the antiquity

[^15]of which is doubtful. The first, 7.50 m . in length, looks like parts of two courses of "quasi-ashlar" masonry built into the modern wall at some distance from the ground. The second, a battered polygonal fragment, is merely a succession of displaced blocks for six of the 8 m . of its length, while the third, of "quasi-ashlar" work, consists of one stone from each of five courses, probably in situ.

At the end of the 206.70 m . we reach the finest piece of the wall now existing (Fig. 1, 12; Figs. 4, 5). Commencing with what seems to be a corner, this massive wall of the "third polygonal" style extends for nearly 40 m .; its greatestaheight is over 8 m .

After a gap of 9.50 m ., there is a similar piece (Fig. 1, 13), 5 to 6 m . in height, which after 15 m . turns toward the town at right angles; it can be traced for 3.50 m . in this direction before it is hidden by the modern buildings.
11.50 m . out from the corner just mentioned are the remains of a great projecting tower or bastion that is built of the "quasi-ashlar" rusticated masonry (Fig. 1, 14; Fig. 6). Its southern side is 3 m . in


Figure 4.-Fragment 12 of the Town Wall of Setia, showing Height length, its front 30.50 m ., but the northern side cannot be measured, as it is covered by the later walls; its height near the southern corner is 7.70 m .

It is probable that this great outwork protected the gate at which the road from the plain entered the town. Professor Frothingham assumes this on one of his unpublished plans of the region, ${ }^{1}$ on which this road turns at the Madonna della Pace

[^16](Fig. 1, e), passes below the Tempio di Saturno (Fig. 1, d) and along the great terrace wall (Fig. 1, b), and enters here. It is also possible to assume that the road entered the town by the route of the modern road, passing between fragments 16 and 17 of the wall; but the question cannot be decided for lack of evidence.

In mediaeval times, at any rate, there was an entrance to the town at this corner, of which there are extensive remains (Fig. 1, a). The line of the front of fragment 14 is continued by 4.70 m . of mediaeval wall, which is built of concrete faced with opus incertum. Then comes an arched opening 1.80 m . in width, flanked


Figure 5.-Fragment 12 of the Town Wall of Setia
by ashlar masonry, with stone voussoirs above; this admits to a passage, now partially filled, that ends beneath a mediaeval tower about 25 m . inside the town. This passage was later extended down the hill from the arched opening with walls of much poorer concrete faced with opus incertum, which are now destroyed beyond a distance of 4 m . There are other traces of mediaeval walls to the north of the arched opening, in the line of the front of fragment 14; these, however, clearly have nothing to do with the mediaeval town wall, which turns abruptly up the hill beyond the archway.
the remains of Setia (Fig. 1), however, is based on more extensive observations and differs much from his, in which the draughtsman has made several errors. For brief accounts of his surveys, see A.J.A. I, 1897, pp. 60 ff . and his Roman Cities in Italy and Dalmatia, pp. 76 ff .

I have described in detail this mediaeval entrance because most previous writers have stated that it was the ancient entrance to the town, ${ }^{1}$ or a part of the ancient curia; ${ }^{2}$ they include also among the remains of the curia a row of mediaeval vaults that were built against the outside of the ancient bastion, and other vaults above it. There is absolutely no foundation for their statements.

There can be no doubt that the next fragment of wall (Fig. 1, 15) belongs to the ancient wall of the town and marks its limit. in this direction, as it follows exactly the edge of the rugged height.


Figure 6.-Northwestern Corner of Bastion (Fragment 14) showing Later Addition (a)
on which the town was built to a corner that juts out toward the Pontine Marshes. ${ }^{3}$ Its length to the corner is 30.30 m ., and it can be traced for about 6 m . beyond the corner; it varies in height, according to its preservation, from a single course to 4 m . It is chiefly of the "third polygonal" style, changing to "quasiashlar" at the corner.
${ }^{1}$ As Marocco, p. 11, Abbate, p. 500, Lombardini, p. 27. On Professor Frothingham's plan there is no indication that these remains are not as ancient. as the rest of the wall.
${ }^{2}$ Corradini, Vetus Latium, pp. 28-30, De Civitate, p. 11; Westphal, p. 53; Tufo, pp. 62-3.
${ }^{3}$ The belief of Corradini, pp. 4-5, Marocco, p. 12, Tufo, pp. 13-19, 23-26, and Lombardini, pp, 37-8, that the town extended much farther, even to S. Sosio (Fig. 9, 10) and the Madonna dell'Appoggio (Fig. 9, 8), is quite erroneous.

It is not clear what relation the next fragment (Fig. 1, 16) bears to the line of wall. It consists of two pieces of "quasiashlar" rusticated masonry, one 5.80 m . in length and 2.75 m . in height, the other a corner piece, 1.50 m . and 11.40 m . in length on its two sides, and 2.70 m . in height at the corner. Compared with the other pieces of wall, it is almost too far down the hill to be a part of the town wall; in that case, it is probably a separate out-work guarding the road, which, as I have just suggested, ${ }^{1}$ may have entered the town at this point.

The next fragments (Fig. 1, 17, 18), however, apparently form part of the town wall. The first of them, although incorporated in a modern partition, and somewhat rebuilt, is probably ancient. Its length is 10.60 m ., its greatest height, 2.60 m .; the masonry is "quasi-ashlar" and smooth faced. The other fragment consists merely of three or four stones. ${ }^{2}$

The four remaining fragments indicated on Figure 1 are unquestionably antique, and are all portions of the town wall. The first (Fig. 1, 19), of the "quasi-ashlar" rusticated type, is traceable for 9.80 m. ; its greatest height is 1.20 m . Nearby is the second fragment (Fig. 1, 20), a series of ancient blocks, built into a modern house for a distance of 6 m . Not far away begins the longest piece of the entire circuit (Fig. 1, 21); it runs for 46 m . beneath the mediaeval town wall and towers and the church of S. Lorenzo, with a height that varies greatly but is never imposing. The masonry is again "quasi-ashlar" and rusticated. Finally, there is preserved beyond the Porta S. Andrea a peculiar double jog of ancient wall (Fig. 1, 22), formed by three battered pieces $3.30,3.60$ and 6.50 m . in length, which reaches a height of 2.50 m . The modern house and garden walls follow so exactly the intricacies of this piece that we must believe that the line of the other modern walls along this edge of the town represents approximately the line of the ancient wall on this side.

Within the area enclosed by this wall are remains of two other lines of wall, both in the southern part of the town. The principal fragment of the outer one of the two lines (Fig. 1, 23) lies at some distance from the rest in the garden of Sig. Maselli. It is 12.10 m . in length and about 3 m . in height. Five other battered fragments (Fig. 1, 24) are preserved in the walls of houses on the

[^17]northern side of the Via Corradini. Their length, beginning with the eastern one, is $2.10,6.80,2: 40,2.70$, and 2.80 metres; the height of the longest one, which is the best preserved, is over 4 m . The accompanying illustration of this piece (Fig. 7) shows well the "quasi-ashlar" rusticated masonry employed.

The inner line (Fig. 1, 25, 26, 27) extends along the foot of the cliff above which S. Rocco, the highest point of the city, stands. Its imposing remains are visible in the rear courts and rooms of several houses on the Via Cavour. The piece farthest to the west is in the court of No. 37 b (Fig. 1, 25) ; it is 11 m . in length and 6 m . in height. The next piece (Fig. 1, 26; Fig. 8) is in the courts of Nos. 29-23 and ends at the foundations of the apse of S . Rocco; it is 14.20 m . in length and about 6.70 m . in height. The third piece (Fig. 1, 27) is just to the east of the apse of $S$. Rocco, in a back room of No. 19; it is 3.20 m . in length and over 4 m . in height. These are all built of the "quasiashlar" rusticated masonry.

Local historians and others have called these inner circuits of city wall, and believe that the town was surrounded by three lines of wall. ${ }^{1}$ It is also sug-


Figure 7.-Portion of Inner Circuit of Wall (Fig. 1, 24) in Via Corradint gested that they represent successive stages in the growth of the city. ${ }^{2}$ 'These theories are erroneous. It is strange, if these are circuit walls, that traces of them are found in only one portion of the town. Besides, the outer one of the lines is too near the town to be practical as a second circuit. This line, I am inclined to think, is a retaining wall for a street. ${ }^{3}$ The inner one of the lines may be a retaining

[^18]wall for the citadel as has been supposed; but it is strange that such a massive wall is found below the citadel on the side where the perpendicular cliff makes such protection unnecessary, while on the other sides of, the supposed citadel, where protection was needed, there are no traces of such walls. I believe that this inner wall was a retaining wall at the rear of some area, sacred or otherwise; there are walls similarly built against the face of the cliff at Cora, and many such walls, made of opus incertum, on the terraces of the Temple of Fortune at Praeneste.


Figure 8.-Portion of Inner Circuit of Wall (Fig. 1, 26) in Via Cavour:
The date of all these walls can be fixed from the fact previously stated that there is no evidence of a Volscian settlement here before the foundation of the Roman colony in 382 b.c. ${ }^{1}$ The presumption, therefore, is that they were built on or after that year by the Romans, and this presumption is strengthened by the fact that the town walls of Norba and most of the polygonal walls in the territory of Privernum are of Roman origin. ${ }^{2}$ In fact, the "quasi-ashlar" portions of the walls at Setia, as Mr. Ashby has recently stated, may belong to a much later period, being built merely as "intentional archaisms." ${ }^{3}$

We have the evidence of inscriptions for a temple of Apollo, ${ }^{4}$ a shrine of Augustus, ${ }^{5}$ a basilica, ${ }^{6}$ and some structure in which
${ }^{1}$ See p. 35, n. 4.
${ }^{2}$ See A.J.A. XV, 1911, p. 56, with references there given.
${ }^{3}$ Encyclopedia Britannica, 11th Ed., article on Setia.
${ }^{4}$ C.I.L. X, 6463 (of the best period).
${ }^{5}$ C.I.L. X, 6461 (Augustan); cf. 6464 (1st century), 6469 (Trajan), for the Augustales.
${ }^{6}$ C.I.L. X, 6462 (late Republic).
games were held, ${ }^{1}$ at Setia. There are no extant remains of any of these structures, and even the sites cannot be exactly fixed. I hazard the guess that the temple of Apollo was at or near S. Lorenzo (Fig. 1, 28). The inscription referring to it is in a pharmacy not far distant; and it is said that two columns of some pagan edifice still exist in S. Lorenzo. ${ }^{2}$ Farther, in the garden of Sig. Pasqualucci, just below the church, was found a fragment of Doric frieze, adorned with bucrania and rosettes, now in the Municipio; and I discovered another larger piece with rosettes, and a fragment of cornice, built into a modern wall that rests on fragment 21 of the ancient wall, just east of S. Lorenzo.

It is said that the shrine of Augustus was at the Madonna della Pace (Fig. 1, e), because the bronze dedicatory inscription in his honor (C.I.L. X, 6461) and an inscription of a sexvir Augustalis (C.I.L. X, 6469) were found there. ${ }^{3}$ I doubt this, as the entire vicinity was a necropolis in ancient times, ${ }^{4}$ in which we should scarcely expect to find such a shrine.

The inscription referring to the basilica was found underneath the convent of the Bambino Gesù (Fig. 1, 29), which may occupy its site.

The inscription regarding games, now built into a mediaeval tower (Fig. 1, 31) in Sig. Pasqualucci's garden, is of no assistance in locating any building. ${ }^{5}$ In this connection, I may add that there are no authentic ruins of any amphitheatre at Setia; the group of vaults just east of the Tempio di Saturno (Fig. 1, 30) to which local historians have given this name, ${ }^{6}$ is of mediaeval origin.

Local traditions have given the names "curia," "tempio di Marte" and "tempio di Saturno" to three other structures. I have already spoken of the first, which is the great bastion at the western end of the city. ${ }^{7}$ The second (Fig. 1, c) ${ }^{8}$ is a terrace wall

[^19]of carefully fitted polygonal masonry of the "third style," 24 m . to the northeast of fragment 16. The ancient wall still in position measures 19.35 m . in length, to a corner from which it can be traced back toward the modern road for 1.25 m ., and 3.20 m . in height. The third is a magnificent platform of "quasi-ashlar" rusticated masonry just to the north of the second (Fig. 1, d; Fig. 9). ${ }^{1}$ According to Lombardini's measurements, it is 17.33 m . by $11.11 \mathrm{~m} . ;^{2}$ its height is over 10 m . This may be a great fort overlooking the road that ascends from the Pontine Marshes, or guarding an approach to the city, or the foundation of some public building, or even the substructure of a great Roman villa;


Figure 9.-Tempio di Saturno (Fig. 1, d) from North
but there is no authentic proof that it ever was intended for a temple of Saturn. ${ }^{3}$

Before closing this part of the discussion, I must describe one other ruin close to the town. About 25 m . below the mediaeval passage into the town:(Fig. 1, a) begins a roughly laid polygonal wall that seems to be a retaining wall for a road (Fig. 1, b). It follows the contour of the ground, sloping downward, with a height that varies but is not over 5 m . I followed this wall for about 150 m . before it stopped, and beyond the end of the actual wall I could trace the place prepared for it in the rock for 10 m .

[^20]more. As I have already stated, ${ }^{1}$ it is probable that the road ascending from the plain passed above this terrace wall before it entered the city. ${ }^{2}$

## II. The Road to the Town. ${ }^{3}$

When Setia was founded in 382 в.c., the only main road nearby was the old Volscian highway that passed along the foot of the hills above the Pontine Marshes. ${ }^{4}$ With this Setia must have been connected by a branch road leading up the hill, but it is impossible to trace the lower course of this road and to state positively that any of the road remains which I shall describe belong to this period. However, it must have followed up the hill the same course as that which I shall trace, as this has proved to be the only practicable one for any road to the town to take, in ancient or modern times.

When the Via Appia was constructed in 312 b.c., the branch road was extended to it; the entire branch from the Via Appia to the town is commonly known as the Via Setina, although this name is not found in the ancient writers. ${ }^{5}$ An inscription of about 150-100 в.c. (?), found near the Acquaviva (Fig. 10, 6) states that the quattuorviri C. Paconius $\operatorname{Pol}(1)$ io and C. Pomponius $\operatorname{Pol}(1)$ io paved this road with stone. ${ }^{6}$ We have no means of telling if they paved the entire road or only the part ascending the hill, if this was the first pavement of the road, or if the traces of pavement still existing date from their time or later.

Owing to the season, I could not study the course of the road across the Pontine Marshes. According to Tufo, ${ }^{7}$ it left the Via

## ${ }^{1}$ See above, p. 40.

${ }^{2}$ A supposed temple of Hercules, located beside S. Rocco where S. Pietro and the former Jesuit College now stand, is known only from the testimony of forged inscriptions (C.I.L. X, ${ }^{*} 904$, ${ }^{*} 905$, cf. ${ }^{* 910) . ~ S e e ~ C o r r a d i n i, ~ V e t u s ~}$ Latium, pp. 35-49, De Civitate, pp. 5, 6, 11; Lombardini, pp. 21-2. Tufo, pp. $51-2$, doubts the tradition.
${ }^{3}$ On this road see especially Corradini, p. 5; Westphal, p. 53; Tufo, pp. 45-9; Lombardini, p. 19. Cf. also Nissen, p. 645; Smith's Dictionary of Geography, p. 971.
${ }^{4}$ Cf. Frothingham, pp. 75 ff ., who, acting on his theory that Setia is preRoman, would make the Volscian highway ascend to Setia, as at Norba, and pass through the city.
${ }^{5}$ Lucilius, in Gellius, N.A. XVI, 9, speaks of this toilsome ascent as opus durum. Smith, l.c. unwarrantedly assumes that in Lucilius' time "the high road probably passed by Setia itself."
${ }^{\circ}$ C.I.L. X, 6467.
${ }^{7}$ Pp. 47-9.


Appia near the Casale Rapini (Fig. 10, 1), crossed the Cavata on a bridge of which only the piers remain (Fig. 10, 2), from which point its pavement of silex can be traced for some distance beyond Gli Archi (Fig. 10, 3), before it disappears. Doubtless the modern Via degli Archi or Via Settina (Fig. 10, 4) follows about the line of the ancient road.

I have, however, traced and measured the line of this road from the point at which it again is visible, that is, just above the Acquaviva (Fig. 10, 6), where the older mulepath leaves the carriage road. ${ }^{1}$ From here, the ancient road, usually serving as foundation for the mulepath, can be traced up the hill for over 1400 m .

The first certain remains of the first incline of the ascent begin about 30 m . from the point of divergence just mentioned. Thence for 295 m . we can follow, the retaining wall supporting the outer edge of the ancient road and modern mulepath, which rise in a sweeping curve that corresponds to the curve of the hillside. Here, and in almost all portions of the road, this wall is built in the "first polygonal style"; its greatest measured height is 3.60 m . The ancient pavement of polygonal limestone blocks can be seen in one place, 13 m . before the end of this incline, where a washout has exposed the outer edge of it.

The turn between the first and second inclines of the road has been destroyed. It evidently must have formed a more acute angle than the turn of the modern mulepath, as the first traces belonging to the retaining wall of the second incline of the ancient road are down the hill from the second incline of the mulepath. These traces of the second incline of the ancient road begin at a distance of 8.90 m . from the end of the remains of the first incline; it is 24.50 m . farther up the hill to the first continuous piece of the retaining wall.

This retaining wall of the second incline mounts the hill at a steep gradient for 164.20 m . before it joins the modern mulepath. From the point of junction the ancient retaining wall, built into that of the mulepath, is seen at intervals for a distance of 347.20 m . to the corner below the Madonna dell'Appoggio (Fig. 10, 7).

[^21]Most of this wall is of the "first polygonal" style; but the last stretch just before we reach the Madonna dell'Appoggio is built in the carefully fitted "third polygonal" style, of which we have already seen examples in the town wall. ${ }^{1}$

At the corner below the Madonna dell'Appoggio is a projecting bastion of "quasi-ashlar" rusticated masonry, that may be a later addition. It projects for about one metre from the line of wall; its width is 5.60 m ., its height about 4 m .

From this corner below the Madonna dell'Appoggio for 200.40 m., measured along the outside of the mulepath, there are no signs of the ancient road; but it must have been approximately where the mulepath now is, as there is no other possible course for it. After this distance, there are seen in the mulepath considerable remains of the ancient pavement, made of large, carefully fitted polygonal blocks of limestone (Fig. 10, 8; Fig. 11). The first piece is 3 m . in length. The next, a well-preserved piece, 12.70 m . farther on, is 35.50 m . in length and 2.40 m . in width. At a distance of 14.20 m . from this, around a slight curve, is a third curving piece, 20 m . in length. As previously stated, ${ }^{2}$ it is uncertain whether or not this is the pavement mentioned in the Republican inscription found at


Figure 11.-Pavement of Ancient Road to Setia (Fig. 10, 9) the Acquaviva.

From the end of this last piece of pavement signs of the ancient road disappear; but 130 m . up the mulepath, and 44 m . below S . Sosio, to which the path makes an abrupt ascent, and at which there is a sharp turn, we find a platform of "quasi-ashlar" rusticated masonry that juts out from the upper level of the path.

[^22]and overlooks its lower level (Fig. 10, 9). The front of this platform is 9.50 m . in length, and its sides are traceable for 8.90 m . and 9.40 m. ; its extreme height is 6.50 m . As I have already shown, the hypothesis that this is the main gate of the ancient town, which extended to this point, is quite false. ${ }^{1}$ Equally false is the assumption that this was a tomb, because a sarcophagus containing two skeletons was found here. ${ }^{2}$ It is, of course, merely a fort commanding the ancient road as it approaches the turn.

At a distance of 181.50 m . above S. Sosio I found another bit of "quasi-ashlar"rusticated masonry beneath the outer retaining wall of the mulepath; it measured 5 m . in length and 1 m . in


Figure 12.-Plan of Remains of Villa above the Madonna dell' Appoggio (Fig. 10, 11)
extreme height. This may be a part of the retaining wall for the ancient road.

Between the point last mentioned and the Madonna della Pace (Fig. 10, 10) the pavement of the ancient road formerly existed, but has now entirely disappeared. ${ }^{3}$ At or near the Madonna della Pace it must have turned; its probable course from there has previously been discussed. ${ }^{4}$

Along this road, just above the Madonna dell'Appoggio, is one other group of remains (Fig, 10, 11); I had no time to study

[^23]this in detail, but present a rough plan of it, with a brief description of the different parts (Fig. 12). ${ }^{1}$ It consists of (a) a great retaining wall of polygonal masonry, poorly jointed, but with the faces of the blocks smoothed. It is over 50 m . in length; its height near one end is 2.90 m . I could not trace a similar retaining wall at the sides of the area, because on the western side a modern wall had been built, and on the eastern side the brush was too dense to explore successfully.

It cannot be determined whether this wall dates from the early Roman period or is a later imitation, of the same date as the other remains on this site. ${ }^{2}$ In any case, during the last century of the Republic this terrace became the site of a Roman villa. There are first two walls of concrete faced with opus incertum of limestone ( $b, c$ ) that barely project above the ground. The second of these walls leads to a slight jog in which is a bit of painted stucco, and then to the remains of a circular room with a small entrance passage, embedded in the ground (d). The walls of this room, which looks like a bathroom or latrina, have a stucco paneling, with traces of slate and red coloring.

Other remains on this level consist of another wall faced with opus incertum (e), a finely preserved pavement of opus spicatum now used as a threshing floor ( $f$ ), and what may be a bit of ancient terrace wall of polygonal masonry ( $g$ ).

Back of these remains the level rises, but, as indicated on the plan, the rock has been carefully scarped so as to form a second terrace parallel to the front retaining wall; the last wall mentioned is in line with the foot of this scarped rock. On this higher level is a large reservoir with concrete walls ( $h$ ), now nearly filled up; the northern end of it was covered by stones and earth, so that only a part of its length could be measured.

In 1876 and previous years, along this ancient road, both above S. Sosio, and to the north of the turn at the Madonna della Pace, near the Ponte della Valle (Fig. 10, 12), various tombs were discovered. No traces of this necropolis are longer visible. ${ }^{3}$

[^24]
## III. Inscriptions from Setia

I have discovered only one fragment of an ancient inscription at Sezze that has not been previously published. It is a piece of a white marble slab, broken on three sides, 0.12 to 0.14 m . in height, 0.155 to 0.17 m . in width, preserved in the garden of Sig. Maselli. ${ }^{1}$ The letters are of the second century, 0.02 to 0.025 m . in height. It reads:

| I' |  |
| :--- | :---: |
| IVS. EVDES | i.e. Servius (?) Eudemus |
| 'IA.SECVR, | Servia |
| LICISSIMI | ?) Secura |

I give also a description and reading of the inscription regarding games previously mentioned, ${ }^{2}$ as Tufo, who was the first to publish it, gave only a portion of the text. It is fragment of limestone, broken on all sides, 0.53 m . in height and 0.20 m . in width. The letters, of the third century, are 0.05 m . in height.

| IU IIVIP | i.e., IIIIvir... |
| :--- | :--- |
| I O R I | praetori (?) |
| P A T R | patrono (?) |
| H I C. | hic |
| C IR C | circenses (?) |
| nFDIT. I | dedit |

A study of the published inscriptions has made it possible to correct the copies of the Corpus and the Notizie degli Scavi in several particulars, as follows:
C.I.L. X, 6463, broken into two pieces, now lies in a storeroom of the Farmacia Marella, Via Principe Umberto, 53; it dates from the good period. There is a point after AED in line 2 ; the C in line 1 and the O in lines 2 and 3 are smaller than the other letters in those lines.
C.I.L. X, 6464 is set into a wall in the upper hall of the Instituto Pacifero de Magistris, which has recently become the Municipio; it has been somewhat damaged since it was seen by the editor of the Corpus. It dates from about the third century. I could find no point after ET of line 2; the piece of a letter at the beginning of line 5 looks like an M .

[^25]C.I.L. X, 6466 reads very clearly PACONIVS and not PACONIOS in line $1,{ }^{1}$ and the second stroke of the $L$ does not make a very acute angle with the first stroke; the date, therefore, must be later than has been usually assumed. The O is smaller than the other letters.

The letters of C.I.L. X, 6469 are of the same style as those of the milestone dating from 105 A.D. that stands beside it; the 0 in SOTERICO is smaller than the other letters.
C.I.L. X, 6471 is cut near the top of a perpendicular piece of rock some 4.50 m . in height, but with the aid of a ladder I was able to get a good view of it. The inscription, which is rapidly becoming illegible, apparently dates from the late Republic. ${ }^{2}$ My transcription is as follows:

| $C \cdot L$ | $C$ | $I$ | $N$ | $I$ | $V$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $A$ | $S$ | $C$ | $L$ | $E$ | $P$ | 1 | $A / I$ | $S$ |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IN | 1 |  |  |  |  |  |  |  |

(line 4 may read INF .)
I found C.I.L. X, 6473, which had been known before only from manuscript authority, built into the front wall of a house, Vicolo dell'Arpia, 2, at the left of the door. It is a slab of limestone, broken at either end, measuring 1.30 m . by 0.60 m .; the letters are 0.11 to 0.115 m . in height. It dates from the late Republic. My transcription is as follows:

$$
\begin{gathered}
\text { EVEIA-C-F-C-VEVEIO } \\
\text { PATREI- }
\end{gathered}
$$

C.I.L. X, 6476 dates from the late Republic. In line 3 the AE forms a ligature, and the last word in line 5 is GVDAE, with the $A E$ forming a ligature.

According to Ephemeris Epigraphica, volume 8, page 157, C.I.L. X, 6477 is the same as VI, 19495, and comes from Rome. If this is true, it is not clear how it reached Sezze; the members of the Zaccheo family, in whose house it has been for some time, think that it was found in a garden belonging to them which lay below the Tempio di Saturno. In any case, the copy given in

[^26]C.I.L. X is the correct one. The inscription dates from the third century or later.

The walls into which C.I.L. X, 6478 and Ephemeris Epigraphica, volume 8 , page 157 , number 640 , are set, have been so covered that the inscriptions are no longer visible. ${ }^{1}$

The milestone discussed in the Notizie degli Scavi for 1895, pages 28 to 31, now stands in the courtyard of the old Municipio. I give my reading of it, as it differs materially from that of the Notizie:

## IMP•CAESAR DIVI • NERVAE F FIL NERVA. TRAIANVS AVGVSTVS GERMANICVS.DACIC// PONTIFEX.MAXIM // <br> TRIBVNICIA • POTES / / / / X IMP.V.COS.V.PATER•PATRIAE RESTITVENDAM.CVRAVIT. $X \quad$ L 1 । 1

I have also seen the two fragments given in the Notizie degli Scavi for 1907, pages 662-3, which belong to the same inscription. They are built into a stone fence to the left of the mulepath which leads through the Piagge Marine district, a short distance to the northwest of the rock which bears C.I.L. X, 6471. I add my reading for the larger fragment, which is unbroken only on the left side:

$$
\begin{aligned}
& L \cdot A N N I \cdot L \cdot L \cdot E R O P H I L \\
& \text { CLODIA } \cdot A \cdot L \cdot S A L V \\
& L \cdot \text { ANNI } \cdot \text { EROPHILI } \cdot L \cdot N
\end{aligned}
$$

The letters of the smaller fragment are so corroded that the reading of the first line as given in the Notizie is very doubtful. The inscription dates from the best period.

I have seen the other inscriptions still existing that are given under Setia in the Corpus except C.I.L. X, 6479 and 8398, but have no corrections or additions to make.

[^27]In revisiting Piperno on August 12 and 13, 1912, I found pieces of two other inscriptions that doubtless came from Privernum, which I have not recorded in my previous article. ${ }^{1}$ The first is a piece of white marble in the garden of Don Giulio Bianconi, which at some unknown period was cut to form a slab for a church altar, 0.305 m . in height and 0.325 m . in width. The letters are 0.05 m . in height. The inscription, in Greek, is at the top of the slab;

> АКНФІАО

The other fragment, also of white marble, is in the possession of Sig. Jannicola, and was found by him at Piperno Vecchio. It is 0.19 m . in height and 0.12 in width; the letters are 0.0325 m . in height. The letters remaining belong to the last two lines:

$$
\begin{gathered}
S O \\
\mathcal{S E R ~}
\end{gathered}
$$

Henry H. Armstrong.
OBERLIN, OHIO, July, 1913.
${ }^{1}$ A.J.A. XIV, 1910,_pp. 318-323

## Archaeological

Jnstitute of $\mathfrak{A m e r i c a}$

## WERE OLYMPIC VICTOR STATUES EXCLUSIVELY OF BRONZE?

It has been assumed pretty generally by archaeologists that the victor statues set up in the Altis at Olympia were uniformly of bronze. Scherer, in his inaugural dissertation De Olympionicarum Statuis, which appeared in 1885, was the first to discuss the question fully ${ }^{1}$ and his arguments and conclusions have been followed by later investigators. Thus, Dittenberger and Purgold state unequivocally that these statues were ausnahmslos aus Bronze, ${ }^{2}$ and more recently Hitzig and Blümner, in their great commentary on Pausanias, have again pronounced the dictum that die Siegerstatuen waren durchweg aus Erz. ${ }^{3}$ The arguments adduced by Scherer and others in defense of the contention seem, at first sight, though inferential in character, quite conclusive. The main ones are these: In the first place, it has been pointed out that the statuaries mentioned by Pausanias in his Victor periegesis (VI, 1, 1-18, 7), if they appear at all in Pliny's Historia Naturalis, appear there in the catalogue of bronze founders. ${ }^{4}$ Secondly, the excavated bases identified as those of victor monuments, bear foot-prints of bronze statues. Thirdly, actual bronze fragments indubitably belonging to the statues of victors were

[^28]found during the excavation of the Altis; ${ }^{1}$ their small numberScherer wrongly thought there were none-is explained on the theory that all these statues were of bronze and that they were destroyed by the barbarians in their inroads into Greece during the Middle Ages, since this metal was especially sought after. ${ }^{2}$ Fourthly, the silence of Pausanias as to the materials employed in these statues has been used as an argument that they were bronze; for in his whole description he mentions the material of only two statues, which he describes because of their great antiquity, special position in the Altis apart from the others (near the column of Oenomaus) and the fact that they were made of wood. ${ }^{3}$ Furthermore in his book on Achaia there occurs this passage in reference to the statue of the victor Promachus set up



## ${ }^{1}$ These fragments consist of:

(a) An inscribed convex piece of bronze, "anscheinend vom Schenkel einer Bronzestatue herrührend," of imperial times; the inscription gives a fragmentary enumeration of various victories: see Inschr. v. Ol. No. 234.
(b) A similar fragment of the same period; see Inschr, v. Ol. No. 235.
(c) Life-sized portrait head of a boxer; though most writers have referred this to the third century b.c., Furtwängler refers it to the end of the fourth, to the school of Lysippus; see Ergebn. v. Ol. Textbd. IV (Bronzen), pp. 10, 11 and Tafelbd. IV, Tafel II, 2, 2a; cf. Friederichs-Wolters, Gipsabgüsse, No. 323.
(d) A foot of masterly workmanship, ascribed to the end of the third century b.c. by Furtwängler and referred to one of the two statues of Caper, a victor of Ol. 142, mentioned by Pausanias VI. 15, 10; see Textbd. IV, p. 11 and Tafelbd. IV, Taf. III, 3, 3a; cf. Friederichs-Wolters, No. 324. Its position shows that the statue was in great motion and so Furtwängler ascribed it to a victor statue.
(e) Right arm of a boy victor statue; Textbd. IV, p. 12 and Tafelbd. IV, Taf. IV, 5, 5a, and cf. Friederichs-Wolters, No. 325.
${ }^{2}$ Cf. E. Curtius, Peloponnesos, I, p. 85; II, pp. 16 and 96 n. 14; F. Dahn 'Die Germanen in Griechenland,' Arch. Ztg. 1882, p. 128 f.
${ }^{3}$ Those of Praxidamas of Aegina who won $\pi \xi \xi$ in $\mathrm{Ol} .59=54$ B.c., and Rhexibius of Opus, who won $\pi a \gamma \kappa \rho$ átıo in $\mathrm{Ol} .61=536$ в.c.; see Paus. VI, 18, 7. Pausanias, l.c., says the statue of Rhexibius was of fig wood, that of Praxidamas of cypress wood and so less decayed than the other. We know that cypress wood was largely used for the early $\xi$ boava, because of its hardness and durability; e.g., the gilded statue in Ephesus mentioned by Xenophon, Anab. v, 3, 12; Theophrastus, De Plant. Hist. v. 4, 2, speaks of the durability of cypress; see Hehn, Kulturpfl. 6, 277 sq; Blümnэr, Technologie, II, p. 257, and cf. Hitzig-Blümner, op. cit. II, 2, p. 625.
$\gamma \nu \mu \nu a \sigma i \notin \lambda i \theta o v ~ \tau a u ́ \tau \eta \nu ~ к а i ~ o u ́ ~ \chi a \lambda к о \hat{v} .{ }^{1}$ From these last words, the one in the gymnasium being of stone and not of bronze, it has been inferred that all the statues at Olympia were of bronze. Besides these principal arguments many others have been urged on purely a priori grounds; that since these statues stood in the open air, subject to all kinds of weathering, they must have been of bronze; ${ }^{2}$ that metal statues would have been cheaper and more easily prepared than those of marble; ${ }^{3}$ that the later Peloponnesian schools of athletic sculpture, characterized by their predilection for bronze founding, would nowhere be more prominently in evidence than at Olympia; etc.

Thus the case for the use of metals in these statues seems well attested; and, for the reasons given, it cannot be reasonably doubted that the vast majority of these victor monuments were made of bronze. But thât they were not exclusively of bronze, and that there were many exceptions to the general rule, can actually be proved. Let us consider each of the foregoing arguments in turn and see whether, in the light of all the accumulated evidence, they are as well founded as they seem to be.

As for the first point, that the statuaries mentioned by Pausanias appear only in Pliny's catalogue of bronze founders, we must remember that Pausanias himself says ${ }^{4}$ he is making only a selection of the victor monuments in the Altis, those of the more famous athletes; therefore the 192 monuments (of 188 victors) ${ }^{5}$ which he does mention must be a small fraction of the great multitude of such monuments in the Altis. Manifestly, therefore, we should not base an argument on the small number mentioned, for there must have been many other artists employed at Olympia, some of whom might well have been workers in marble. Besides, of the statuaries actually named by Pausanias, many do not appear at all in Pliny's work; many of these may have been exclusively sculptors in stone; and of the names

[^29]which are mentioned by Pliny, at least six-Calamis, Canachus, Eutychides, Myron, Polycles, Timarchides-appear in the catalogue of bronze workers and also in the list of those who worked in marble. ${ }^{1}$ Likewise, in reference to the second argument, that the excavated bases show footprints of bronze statues, we must admit that only a small fraction of all the bases in the Altis has been recovered. ${ }^{2}$

The fact that actual remains of bronze statues have been excavated can be met with the fact that remnants of marble statues have also been found; and it does not seem reasonable, in the light of all the evidence adduced by Treu, Furtwängler, and others, to reject these as fragments of actual victor statues. ${ }^{3}$

The reticence of Pausanias as to the material used in these statues is in accordance with his general custom, for he very rarely mentions the materials of monuments, and only where bronze and stone or other materials stand close together in a
${ }^{1}$ Pliny differentiates carefully between ars sculptura (i.e. sculpture in stone) and ars statuaria (i.e. in bronze): thus Bk. XXXIV of the Hist. Nat. is concerned with the latter, Bk. XXXVI with the former. In XXXVI, 15, he says sculptura is the older and that bronze statuary began with Phidias in Ol. 83= 448-445 в.c., a statement inconsistent with XXXIV, 83, where he speaks of Theodorus (middle or second half of the sixth century B.c.) as casting a likeness of himself in bronze. But it is well known that Pliny in his long work quotes from a variety of sources, without attempting to reconcile them.
${ }^{2}$ Not one fifth of the victors mentioned by Pausanias are known to us through these bases: cf. Hyde, A.J.A. XI, 1907, p. 413, n. 1.
${ }^{3}$ I append a brief list of these fragments from Treu's work, Die Ergebn. v. Ol. Text Bd. III (Bildwerke von Olympia) and Tafelbd. III: a and b; two lifesized archaic helmeted heads, ascribed to statues of hoplite victors; A, Tafelbd. III, Taf. VI, 1-4, Textbd. p. 29 f., to which Treu refers several other fragments, i.e. shield and arm, with a Phrixus and ram on it (Taf. VI, 5-6, and fig. 30 in Textbd.); shield fragment, with Siren's wing on it (Textbd. fig. 31), fragment of shield edge (Textbd. fig. 32), and right foot (Tafel VI, 7-8, Textbd. p. 31). B, Tafel VI, 9-10, Textbd. p. 31 f., cf. Furtwängler, Preuss. Jahrb. LI, p. 382, and Samml. Sabouroff, p. 5, n. 4; Flasch, in Baumeister's Denkmäler II, p. 1104 V; R. Förster, Das Porträt in der griech. Plastik, p. 22, n. 5, etc.
$c, d$, e, fragments of statues of boy tictors: $c=$ trunk with left upper leg $\frac{8}{5}$ life-size; see Tafel, LVI, 2, Textbd. p. 216, No. 241: Furtwängler, (50 Berliner Winckelmanns Programm, p. 147), despite the size and material, ascribed this fragment to a boy victor, likewise Treu, Textbd., p. 216; Treu and Furtwängler both refer it to the fifth century B.c., and to Peloponnesian work; $\mathrm{d}=$ breast, half life-size, Tafel LVI. 3; e=upper parts of legs, $\frac{2}{3}$ life-size, Tafel LVI, 4.

Besides these, Treu adduces the fragments of four different boy statues, less than life-size; Textbd., p. 216, n. 4, and Fig. 242; a=buttocks; b=right upper

circumscribed area, as, for instance, in enumerating the various monuments in the Heraeum at Olympia. ${ }^{1}$ And so the only inference we should draw from Pausanias' statement about the statue of Promachus is that this particular statue of a victor at Olympia was of bronze; we are not justified in going any further. Besides the stone statue of Promachus in Pellene, we have actual notices of marble statues of Olympic victors outside Olympia, as that of Arrachion at Phigaleia, ${ }^{2}$ and that of Agias, by Lysippus, at Delphi. ${ }^{3}$ If they existed outside Olympia, there is no reason why they could not have existed in the Altis also. Many of the older statues, like that of Arrachion just mentioned, conformed to the "Apollo" type; ${ }^{4}$ and doubtless many of these at Olympia were of marble. And the evidence for bringing the beautiful marble head found at Olympia, and usually called a youthful Heracles, into connection with the statue of the Acarnanian boxer Philandridas by Lysippus, mentioned by Pausanias (VI, 2, 1), seems conclusive. ${ }^{5}$

The argument that stone statues were intended to be placed under cover, while bronze ones were to stand in the open air, is good in principle, though the rule was everywhere broken by exceptions too numerous to mention. ${ }^{6}$ That metal statues would be cheaper than marble must also be questioned. ${ }^{7}$ We know that in consequence of the expense involved in setting up statues in the Altis, an expense which had to be borne either by

[^30]the victors themselves or their friends or city-states, many contented themselves with setting up small bronze statues, numbers of which have been found at Olympia. That they were common elsewhere is shown by the countless athlete statuettes-especially discoboli-in all European museums. ${ }^{1}$ For the same reasons of economy, victors would choose instead of bronze the less durable and cheaper stone, as we saw in the case of Promachus and Arrhachion, or even wood, as in the case of Praxidamas and Rhexibius. Still others-especially boy victors-would set up. small marble statues, two-fifths to two-thirds life size, as the fragments of the seven examples collected by Treu and already enumerated prove.

Thus we see that the contention that the victor statues at Olympia were exclusively of bronze, in the light of the evidence here collected, must be given up.

Walter Woodburn Hyde

## University of Pennsylvania.

${ }^{1}$ Cf. Furtwängler, Textbd. IV (Bronzen von Ol.), pp. 21-2: Fünfzigstes Berliner Winckelmanns Programm, p. 147: Reisch, Griech. Weigeschencke, p. 39. Furtwängler enumerates several such bronze fragments found at Olympia; Textbd. IV, p. 21 f., Nos. 57, 59, 63, Tafelbd. Taf. VI and VIII. Reisch (op. cit.) enumerates as examples in European museums, the "Tux'sche Bronze" of a hoplite victor (described by Hauser, Jb. Arch. I. II, p. 95 f.); the statuette of a $\pi$ aîs $\kappa^{\prime} \lambda \lambda \eta$ from Dodona, (see Karapanos, Dodone, Pl. XIII. 1); for discoboli see Sacken-Kenner, Die Antiken Bronzen im Kais. Münzcabinet in Wien, Taf. 35,$1 ; 37,4$.

## American Sctyod <br> of Oriental ̉esearch <br> in Jerusalem.

## AN INSCRIBED TOMB AT BEIT JIBRIN

The modern village of Beit Jibrin lies about midway on the route leading from Jerusalem to Gaza. It is the successor of the ancient Mareshah (Greek, Marissa) whose site was close at hand. Many remains bear witness to the important part that this locality has played in the history of the Shephêlah from the earliest times. In 1902 Dr. John P. Peters and Dr. Hermann Thiersch discovered here two remarkable painted tombs, one of which, at least, belonged to members of a Sidonian colony that lived at Marissa during the third and second centuries b.c. ${ }^{1}$

In May, 1913, I chanced upon another tomb in the immediate neighborhood that seems to belong to the same period. At the time I was in search of an additional painted tomb that was reported to have been recently unearthed and rifled by the natives. ${ }^{2}$ Being unable to gain any information as to its whereabouts from local guides I began a systematic examination of the many tombs adjacent to the so-called "Tomb of the Musicians," one of those discovered by Dr. Peters and Dr. Thiersch. Nothing of interest was met with until we reached a point on the hillside above the main valley, about one hundred yards beyond the last named tomb. Here, upon crawling through a hole under a stone that seemed suspended in a somewhat dangerous poise, we suddenly found ourselves in an unusually spacious chamber. ${ }^{3}$ It is cut out of the soft limestone that is characteristic of this district and has the form of an oblong room with a flat roof, its length being 8.94 m . on the one side, and 9.12 m . on the other, while its width ranges from 3.7 m . at

[^31]the front to 3.41 m . at the back. The height is about 2 m . at the rear, the only point where measurements are possible because of the débris. The marks of the picks and chisels that were used in the work of excavation can be seen in the accompanying photographs.

Loculi are cut in all the walls as shown in the diagram (Fig. 1). There are two in the entrance wall, ten on either side, and three at the rear, in all twenty-five. With one exception (16) they have the gabled roof that has been found to be characteristic of tombs at Beit Jibrin in contrast to the horizontal or arched roof that is usual in the case of loculi elsewhere in Palestine. Whether 16 was left with a square top for some particular purpose


Figure 1.-Plan of Tomb at Beit Jibrin
was not determined. Another peculiarity worthy of note is the angle at which loculus 25 diverges. This departure from the usual plan may possibly be accounted for by the danger of penetrating a neighboring tomb. The loculi that were measured ranged in width from 70 cm . to 78 cm . at the bottom and 66 cm . to 70 cm . at the top, and in height from 1.31 m . to 1.43 m . The excess of height over breadth is another feature that distinguishes the loculi of Beit Jibrin. In the first photograph it can be seen that they are not cut down to the level of the tomb floor, but to that of a bench 50 cm . wide and 40 cm . high, that probably extends around the entire tomb. Considerable parts of it are now concealed by débris. Such benches are common to the best executed tombs of this type at Jerusalem, Gezer, and Beit Jibrin. In a few of the loculi bones were visible, that had been stirred up and scattered in the search for antiquities.

The top of the flat-linteled door of the tomb is just below the ceiling and has a width of about. one metre. The entrance is so blocked and concealed by débris that its form and that of the outer court can be determined only after excavation. The material littering the floor of the tomb consists in large measure of the fragments of slabs used in closing the loculi. The brown clay mortar employed in this connection can be seen in the photographs still adhering to the outer edges of some of the openings.

All the inscriptions that could be found are traced with this same brown mortar. There are no decorations. After a loculus had been closed, it seems to have been the custom for the workmen to use the material at hand for recording the name of the departed. This was not always done. So too the length of the inscription and the addition of the date of burial were apparently optional, unless possibly the eminence of the deceased was the deciding factor. The photographs that are here presented are all that it was possible to obtain. Otherwise I am dependent in that which follows upon such transcriptions as could be hastily made on the occasion of two visits. At several important points I have not been able to decipher the letters with certainty.
(1) On the left side-wall as one enters the tomb, over loculus 3 and extending over 4:

$$
\begin{aligned}
& \text { KZITCABOYCTHC } \\
& \text { A TO MOA w poy } \\
& L(?) \zeta \iota(?) \rho(?) \Sigma a \beta o u ̂ s ~ \tau \hat{\eta}{ }^{\prime} \text { 'A } \pi o \lambda \lambda o \delta \delta^{\omega} \rho o v
\end{aligned}
$$

"In the year 117. (The grave) of Sabo the daughter of Apollodorus."

It seems probable either that the first character is $L$, or that it represents érous. Possibly the date should be read 197. A Sabo, the daughter of Sesmaios and another, described as the daughter of Kosnatanos, are mentioned in Tomb I of Dr. Peters and Dr. Thiersch. ${ }^{1}$ Apollodorus was buried in loculus 25 at the right of the entrance and may possibly have been the head of the family that constructed the tomb (see below). Sabo occurs as an Edomite and Nabatean name. ${ }^{2}$

[^32](2) Over loculus 5 (see Fig. 2):
\[

$$
\begin{gathered}
\text { GTOY( ERp } \\
\text { ANTI中INoYTOY } \\
\text { AI:YCl.OY }
\end{gathered}
$$
\]

${ }^{2}$ Etovs $\epsilon \iota(?) \rho$ 'A $\nu \tau \iota \phi i \lambda o v \tau o \hat{~} \Delta \iota o(?) \nu(?) v \sigma i o v$
"In the year 115. The grave of Antiphilus the son of Dionysius."

As can be seen in the photograph the second letter of the date is somewhat indistinct. The name Antiphilus was borne by one


Figure 2.-Interior of Tomb
of the accomplices of Antipater in his plotting against Herod. ${ }^{1}$ In the case of the last name the mortar above the apex of the loculus has crumbled away and left a gap. I have restored according to a probable suggestion of Professor C. C. Torrey of Yale.

[^33](3) Over loculus 6 (see Fig. 2):
$\triangle W C I \Theta \in O Y$
"(The grave) of Dositheus."
This name was borne by one of the captains of Judas Maccabeus (2 Macc. 12:19, 24), and by other Jews of the same period (2 Macc. 12:35; 3 Macc. 1:3; Esther LXX, Ad. 11:1).
(4) Over loculus 7 (see Fig. 2):

## ANTIOXOY

"(The grave) of Antiochus."
This was a common name in the Hellenistic period. (Cf. 1 Macc. $12: 16 ; 14: 22$.)
(5) Over loculus 9:
BOPAIOAOTOY $\quad$ Bop $\Delta$ loóórov
"In the year 172. (The grave) of Diodotus."
The real name of Trypho, the Syrian usurper who killed Jonathan Maccabeus, was Diodotus.
(6) Over loculus 13 (just discernible at the extreme right of Fig. 2):
.... I^OY
The rock upon which the left half of the inscription was written has broken away. Was a descendant of Antiphilus buried here?
(7) Over loculus 15:
$\Delta$ alone could be read. There are faint traces of other letters.
(8) Over loculus 19:

Traces of four letters.
(9) Over loculus 21 (see Fig. 3):

$$
\begin{aligned}
& E T O Y A S \\
& \text { EAlo』WPA } \\
& \text { THKNNNE }
\end{aligned}
$$

"In the year 201. (The grave) of Heliodora the daughter of Aeneas."

Several letters could not be read with certainty. The name Heliodorus occurs twice in the Painted Tombs. ${ }^{1}$ Josephus men-


Figure 3.-Interior of Tomb
tons a Jew bearing the name Aeneas. ${ }^{2}$ I have here again restored according to a suggestion of Professor Corey.
(10) Over loculus 22 (see Fig. 3):

## (-GK) N:OY <br> C.IAWNIA

$\mathrm{E}(?) \iota \kappa о \nu \iota \nu(?) \quad \Sigma \iota \delta \omega \nu i a s$
"(The grave) of . . . the Sidonian woman."
With this inscription may be compared one that was discovere by Dr. Peters and Dr. Thiersch:
"(Grave) of Philotion, the Sidonian woman." ${ }^{3}$
(11) Over loculus 25:

"(The grave) of Apollodorus."
${ }^{1}$ Op. cit. pp. 53 and $64 . \quad{ }^{2}$ Antiq. XIV, 10, 22; cf. also Acts 9:33.
${ }^{3} O p$, cit. p. 66, inscription 42.

Following the name Apollodorus, which makes up the first line, there are three additional lines of inscription of which only the concluding letters in each instance could be deciphered. This name occurs frequently in the Hellenistic period and was borne by at least three men who are commemorated in the tombs discovered by Dr. Peters and Dr. Thiersch. ${ }^{1}$ In the present instance the length of the inscription, the position of the loculus, as well as the statement that Sabo was the daughter of Apollodorus, point to him as the head of the family that constructed the tomb.

There seems to be little reason to doubt that we have here a tomb of the Hellenistic period. Its style, the character of the inscriptions, and the names that can be deciphered with certainty, all point to this era.

The only pottery that could be found confirms the conclusion. It was the fragment of a long, narrow vase, without handles, probably an ointment-vessel. The form is known to be characteristic of the Hellenistic period. ${ }^{2}$

Three of the names as read are those of women. Little is indicated to establish family ties between the persons buried in the tomb except in the case of Sabo. The distance of her grave from that of Apollodorus suggests the use of the intervening loculi for other members of the immediate family.

It is probable that the Seleucidan Era is used here, as is the case, for the most part, in the Painted Tombs. The date, 198 b.c., given in connection with the death of Antiphilus (2) is the earliest, whereas that of Sabo (1) falls two years later, in 196 в.c. (or, on the other reading, 116 в.c.). The date of the death of Diodotus, 141 в.c., is that which can be read with greatest certainty. Latest of all is the inscription of Heliodora (9) who died in 112 в.c. If these renderings are correct we have proof of the continued use of the tomb throughout the second century b.c. In general this corresponds to the period of the Painted Tombs where the extreme dates are 196 в.c. to 119 в.с. in the first instance, and 188 в.с. to 135 в.с. in the second. ${ }^{3}$

As has been pointed out in the course of the discussion, several of the names occurring there are also found here in the present tomb. They are written in the same crude script and with the

[^34]same brown mortar that was used there to some extent for a like purpose. These facts, together with the description of one woman as a Sidonian, make it probable that the tomb belonged to a circle of the same Sidonian colony, whose chief, Apollophanes, was buried in Painted Tomb I. This colony was doubtless planted in Marissa while Egypt was dominant in Palestine. The construction of the tomb may well have taken place toward the close of the third century в.c. ${ }^{1}$

Warren J. Moulton.

Bangor Theological Seminary.
${ }^{1}$ Cf. op. cit. pp. 12 and 13.

## GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

DECEMBER 29-31, 1914
The Archaeological Institute of America held its sixteenth meeting for the reading and discussion of papers at Haverford College, Haverford, Pa., and at the University of Pennsylvania, Philadelphia, Tuesday, Wednesday and Thursday, December 29, 30 and 31, 1914, in conjunction with the American Philological Association and the American Anthropological Association. Six sessions for the reading of papers were held and at an evening meeting two addresses on archaeological subjects were delivered. The abstracts which follow were, with one exception, furnished by the authors.

## Tuesday, December 29. 3 p.m.

Joint Session of the Institute and the American Anthropological Association in the University Museum, Philadelphia.

1. Professor Hiram Bingham, of Yale University, Results of Investigations Concerning the History of Machu Picchu.

No abstract of this paper was received.
2. Professor Alfred M. Tozzer, of Harvard University, The Work of the International School of Archaeology and Ethnology in Mexico, for 1913-1914.

No abstract of this paper was received.
3. Professor George Hempl, of Stanford University, The Origin of Alphabetical Writing in Mediterranean Lands.

No abstract of this paper was received.
4. Mr. H. J. Spinden, of the Museum of Natural History, New York, Nahua Influence in Salvador and Costa Rica.

No abstract of this paper was received.

# Wednesday，December 30． 9.30 a．m． 

## Session at Haverford College．

1．Professor P．V．C．Baur，of Yale University，The Attic Red Figured Vases in the Stoddard Collection of Greek and Etruscan Vases，Yale University．
No abstract of this paper was received．
2．Dr．L．D．Caskey，of the Museum of Fine Arts，Boston， A Chryselephantine Statuette of the Minoan Snake Goddess in the Museum of Fine Arts，Boston，read by Professor G．H．Chase．

This paper will be published in full in a later number of the Journal．

3．Professor W．Sherwood Fox，of Princeton University， A Ptolemaic Inscription in Toronto．

This inscription was found a few years ago in the Fayûm，Egypt，and is now in the Royal Ontario Museum of Archaeology in Toronto．The circum－ stances connected with its discovery are unknown to us．It is a rectangular fragment of marble inscribed with nine lines of letters of the best Ptolemaic period．Each line consists of the name of a Greek and an adjective indicating his nationality．The text is as follows：

| ＇Erinazos | ＇Aөpraîos |
| :---: | :---: |
| Taúpov | ＇Акар ${ }^{\text {a }}$ ， |
| ＾и́ow | ＇Pósıos |
| K入єıтópa才os | ${ }^{\text {＇Pódólos }}$ |
| ＇A ${ }^{\text {rias }}$ | ＇Pódos |
| Фı入べvıхоs | Bortopit ${ }^{\text {a }}$ |
| $\Delta \iota o \nu v o ́ o ́ \omega \rho \rho o s$ | ＇Pódos |
|  |  |
|  | as $\mathrm{B}[0 \sigma \pi]_{\text {opir }}$ |

On epigraphical grounds the inscription would be dated between the begin－ ning of the Ptolemaic dynasty and 260 в．c．To this period belongs an Athenian of the name of Epimachus who under Demetrius was engineer of the siege－ works against Rhodes in 305－4．There was a Tauron，a toxarch，in the army of Alexander who was personally known to Ptolemy，afterwards king of Egypt．Both Epimachus and Tauron could have joined the royal forces of Ptolemy in Egypt to look after the organization of troops of soldiers and workmen and the construction of the many great works of war and peace． We know also of a certain Lyson who was a contemporary of these men in Egypt．On a Bosporite inscription of this same period we find the name Molpagoras．These coincidences of time and nativity prove nothing conclu－ sively，yet it scarcely seems possible that they are accidental．The form of the ethnic Boomopirns is probably the correct classical form．It seems likely that the inscription was originally part of a large votive stele erected
in honor of some god or of the reigning Ptolemy, Soter or Philadelphus. The names are doubtless those of soldiers and engineers in the royal service settled on homesteads in the military colony of the Fayûm.
4. Professor A. L. Frothingham, of Princeton, N. J., Ancient Orientation from Babylon to Rome.

The direction in which one faced in a religious ceremony was an important part of all ancient rituals, but especially so among the Etruscans and Romans. Scholars have found such apparent contradictions among ancient authors, some speaking of an orientation toward the south, others toward the east, or north, or west, that no solution has been thought possible.

The author's solution is as follows: Every nation had three orientations, each one for a specific purpose. One was for consulting the signs of the gods in the heavens; the second was for worshipping the gods on the earth; the third was for paying reverence to the dead and the gods of the underworld. The primary orientation was that concerning the heavens. In this particular the ancient world divided itself into two groups. The first group consulted the heavens while facing toward the south. This group included the Babylonians, Assyrians, Persians, Etruscans, Italic races and Romans. The second group faced in the opposite direction, toward the north. This was the custom in India and in Greece and probably in China. Each group had also the other two orientations; but with an important difference. As the East was for all nations the source of life and all good things, it was the side of good fortune. As it was on the left-hand side of Babylonians, Romans, and their group, for all these people luck was associated with the left hand. With us, who are the intellectual children of Greece, luck is universally associated with the right hand. With the Romans, therefore, the left side was the post of honor. Such a principle of arrangement has important bearings on archaeology and art and helps to distinguish between Etruscan, Greek, and Roman works. It lasted even into the Middle Ages and makes it possible to distinguish works stylistically identical.
5. Professor W. W. Hyde, of the University of Pennsylvania, Were Olympic Victor Statues Exclusively of Bronze?
This paper is published in this number-of the Journal, pp. 57-62.
6. Professor A. T. Clay of Yale University, A New Dynastic Tablet Found at Larsa.

No abstract of this paper was received.

## Wednesday, December 30. 2.30 p.m.

1. Dr. A. S. Cooley, of Lehigh University, A Visit to Carthage and Dougga (Thugga).

No abstract of this paper was received.
2. Professor Charles R. Morey, of Princeton University, An Early Sarcophagus of the Sidamara Type from Sardis.

This paper will be published in full in a later number of the Journal.
3. Mr. John Shapley, of the American Academy in Rome, Decorative Elements of Early Mosaics.

No abstract of this paper was received.
4. Mr. William H. Goodyear, of the Museum of the Brooklyn Institute, Architectural Refinements in English Cathedrals.

Since the year 1895, inclusive, the Museum of the Brooklyn Institute has conducted a research under the direction of the speaker, relating to asymmetries and refinements in mediaeval architecture. The material of the research consists partly of measured plans, sections and elevations, partly of recorded measurements, and partly of photographs. Of the latter some 800 are now extant in enlargements varying in size from $16 \times 21$ to $40 \times 56 \mathrm{in}$. Up to the month of June, 1914, observations in Great Britain had been of extremely limited character. The following observations represent about four weeks' work in England and Ireland, but in the latter country only the cathedrals of Dublin were examined. The observations in England related partly to horizontal curves in plan, and partly to the widening refinement, under which term is understood an outward recession of the piers of the nave, giving an attenuated horseshoe form to the nave. Sometimes the piers are inclined outward in straight lines from the pavement up to the springing of the vaulting. Sometimes the piers are perpendicular to the arcade capitals, and the vaulting shafts incline outwards in straight lines from that point. Sometimes the vertical lines lean outward in curves or in bends, which have the optical effect of curvature. The purpose of this refinement appears to be to give an effect of spaciousness to the upper nave, and partly to obtain that optical interest which is inherent in a delicate horseshoe form, as distinct from the uniformity and monotony of parallel straight lines. The following cases in curvature of plan have been observed: In St. John's at Chester there are curves in plan in the triforium string-course and connected surfaces of about 8 inches deflection to a side, concave to the nave. These curves are found in very delicate degree in the alignment of the bases of the piers, and are increased in an upward direction by outward inclinations of the piers, which are delicately graded in increasing amount from each end of the nave toward the centre. The measurements and various proofs of constructive purpose have been published in the J. B. Archit. of July 25 , and are repeated in the paper here presented. The nave of Chichester Cathedral is an interesting instance of S -shaped curves in plan, similar to those which are found in Saint Ouen at Rouen, and in Notre Dame at Paris. The choir of St. Bartholomew's in London also shows constructive curves in plan, which are convex to the centre of the choir, and are especially pronounced at the height of the triforium stringcourse. The following instances of the widening refinement have been observed, and most of them have been photographed-widening in straight
lines with piers resting on perpendicular pedestal, Temple Church, London; widening in straight lines from the pavement up, Temple Church, Bristol, Chichester Cathedral, Tewskbury Cathedral; widening refinement, with piers perpendicualr to the capitals, and vaulting shafts inclined outward in straight lines, Christ Church, Dublin, north side (the south side has been rebuilt); St. Patrick's, Dublin, as far as the nave is concerned (there are vertical curves in the crossing piers); Southwark Cathedral, London, widening refinement in vertical curves or bends, having the optical effect of curvature, Canterbury Cathedral, Lichfield Cathedral, Durham Cathedral. The choir of Peterborough Cathedral has a widening refinement which is not found in the nave. This is also true of Rochester. It may be considered certain that a much larger number of instances than those which are mentioned exist in the United Kingdom, as a relatively small number of cathedrals and churches have been examined. The observation of these cases of horizontal curvature in plan make it highly probable that wider observations would develop the existence of a larger number of cases.

The following cathedrals have been observed as destitute of such refinements: Cathedrals of Chester, Salisbury, Exeter, Gloucester, Hereford, Worcester, York and Lincoln.
5. Mr. Philip B. Whitehead, of the American Academy in Rome, John Capgrave, a Mediaeval Pilgrim in Rome.

No abstract of this paper was received.
6. Professor Karl P. Harrington, of Wesleyan University, The Ruins of Thibilis.

Thibilis (the modern name is Annonna), though not of superlative interest, among the ancient Roman cities of Africa, and though not on the railroad, is well worth a visit, and may be reached by a pleasant walk south from Ham-man-Khoutin. The Aquae Thibilitanae of the Romans, near the station, are of more than boiling temperature, and still much frequented. The terraces look like those at the Yellowstone. Many Roman remains are placed in the garden square of the hotel.

Thibilis itself is situated on a lonely hill, 2300 feet above sea level, with deep valleys on three sides, and there are no modern habitations. The French excavations begun in 1905 are yet incomplete. Much of the centre of the city has been uncovered, revealing on the whole a rather late and not highly artistic style of construction. Yet an honorary inscription to Hadrian of the year 120 or 121 shows that the city flourished in the best period.

Prominent among the ruins already brought to light are the noteworthy double gate at the south side of the city, the forum, much of the pavement of which has been removed, the north farm gate, the double market gate of two low arches, the private houses towards the east, and the large public building (church or basilica) east of the forum.

In the houses fine materials are often used, even alabaster in the pavement, probably obtained from the neighboring mountains. Late reconstructions sometimes present interesting examples of the misuse of earlier art or architecture, as for example in the north street. A large inverted capital in the
public building indicates an excellent style of art. Probably many similar capitals, with their columns, were taken away for use in mediaeval cities. The northwest part of the city is little excavated, and further excavation. should yield interesting results.

## 7. Professor Karl P. Harrington, of Wesleyan University,

 The Votive Deposit at Ponte di Nona.The thank-offering ex-voto for escape from disease or calamity was a wellrecognized institution among both Greeks and Romans, and has survived ${ }^{\circ}$ in many forms to modern times, especially in the Roman Catholic and Greek Catholic churches (cf. Hor. Car. 1, 5, 13; A. P. 20; Juv. 12, 27; Tib. 1, 3, 27). e.g., Notre-Dame-de-la-Carde at Marseilles. Typical examples in modern times may be seen in the little church of S. Antonio at Tivoli. These ex-votos might be an object originally concerned in the disaster or peril, a tablet recording it by words or illustrations, or a model of person or thing concerned, particularly of a diseased member supposedly healed. Thousands of such models, usually of terra-cotta, have been found in-such places as Cnidus, Delphi, the Tiber island, and Veii; (cf. Not. Scav. 1889, p. 62). Such a deposit has been recently opened at the Ponte di Nona on the splendidly preserved' Via Praenestina, a road much frequented for religious purposes. Excavations on the site revealed very meagre remains of the temple, and gave no indication of the divinity to whom it was consecrated. Very likely it was a divinity of healing supposed to be connected with a magnesian spring near by (cf. Not. Scav. 1912, p. 199, Preller ${ }^{3}$ 2, p. 144).

The two circular favissae opened in the excavations must be only a small part of the deposit, as the temple was evidently frequented for several hundred' years, in republican and imperial times.

Samples picked up there in 1913 show: 1. They were hung up by holes on pegs or hooks. 2. Profiles and full faces were used. 3. The clay varies much; so there was no monopoly in supplying the models. 4. They represent widely different artistic merit. 5. Painting of flesh, hair and eye was practised. 6. Deformed members are sometimes represented, suggesting that the model may have been deposited before healing took place, in faith that it would come later. Further excavations are desirable.
8. Mr. A. Kingsley Porter, of New York, The Art of Benedetto, called Antelami, in Relation to the Development of Sculpture in Lombardy in the XII Century.
The history of twelfth century sculpture in Lombardy begins with Guglielmo, who worked upon the cathedral of Modena from 1099 to 1106, and upon the cathedral of Cremona from 1107 to 1117. He established an artistictradition which prevailed almost unbroken for three quarters of a century. His most famous pupil is Nicolò, who has left works at Sagra S. Michele, in the cathedrals of Piacenza, Ferrara and Verona and at S. Zeno of Verona. His most gifted followers, however, were the unnamed sculptors who worked at Castell'Arquato and Carpi. The school of Guglielmo was brushed aside by Benedetto, who inaugurated an entirely different artistic tradition. Benedetto was not only a sculptor but an architect, and to him we owe the
design of the baptisteries of Serravalle and Parma. His work, far finer than that of the school of Guglielmo, seems to be inspired by French models. His earliest signed work is the Deposition in the Parma cathedral. He worked subsequently at Borgo S. Donnino, and in the baptistery of Parma. The influence of Benedetto was far-reaching, but unlike Guglielmo he did not found a successful school. His genius, like that of Michelangelo, destroyed preexisting traditions without leaving a new school worthy of taking their place.

This paper is to be published in full in this Journal.

## Wednesday, December 30. 8 p.m.

Joint Session of the Institute and the American Philological Association. The following archaeological papers were read:

1. Professor George H. Chase, of Harvard University, The Painted Pottery of Sardis.

See A.J.A. XVIII, 1914, pp. 432-437.
2. Dr. Edith H. Hall, of the University Museum, Philadelphia, Notes on Two Vases in the University Museum.

An early black-figured amphora formerly in the possession of Tewfik Pasha of Egypt, corresponds as regards shape, style, and all technical details with the amphora, No. 587, in the Pinakothek, Munich. The latter is assigned to the workshop of the Phineus cylix, and the style and technique of the Philadelphia amphora agree so closely with those of the Würzburg vase, that it too may be safely assigned to the same workshop.

A red-figured cylix published in the Transactions of the Department of Archaeology of the University of Pennsylvania, II, pp. 144-146 and in the Museum Journal for December, 1913, p. 162, is decorated on the interior with the figure of a nude youth carrying a pig and an object of ritual the identity of which has been much discussed. This object appeared at first to be of the same shape and size as the Cretan "horns of worship," but when the vase was cleaned its contours proved to be the same as those of the three-pronged objects which appear frequently on vases decorated with scenes of sacrifice. Such objects have been often called sacrificial baskets but they should rather be regarded as sacrificial loaves. The shape, which at first sight seems fantastic for a loaf, is entirely in accord with literary tradition in regard to cakes and loaves for sacrifice. The $\epsilon \beta \delta \rho \mu$ оs $\beta$ ous with two horns and the $\mu о \nu \delta \mu \phi a \lambda o s$ or cake with one boss may be cited as analogies for this cake with three prongs.

Four bronzes from a tomb in Corneto, long called horseshoes (A.J.A. 1902, pp. 398-403) are in realtity the bronze cheek-pieces or guards for iron bits. An iron bar found in the same tomb with them exactly fits the piece of corroded iron which is lodged in the central hole of one of them. This piece of iron, far too large for a nail to fasten a shoe, is half of a snaffle bit. The masses of corroded iron on the outside are clearly the iron rings to which the reins were attached. The spikes on the inner surface of these guards may
be compared with those on an Egyptian bit of the eighteenth or nineteenth dynasty, published in the Annales du service des antiquités de l'Égypte, XI, 1912, p. 283.
3. Professor Gordon J. Laing, of the University of Chicago, The Dedicants of the Sacred Inscriptions of the City of Rome.

No abstract of this paper was received.
4. Professor Elizabeth H. Haight, of Vassar College, The Myth of Cupid and Psyche in Ancient Art.

No abstract of this paper was received.
5. Professor Clarence Ward, of Rutgers College, The Place of Reims Cathedral in Mediaeval Art.

An attempt was made to show, first, that historically Reims is of pre-eminent importance as the "National Cathedral" of France; second, that architecturally it ranks first among the cathedrals completed in the Middle Ages in the unity and proportion of its design, in the quality and strength of its construction, in the beauty of its façade, and in the form of its buttresses, pinnacles and possibly of its window tracery; third, that it rivals Chartres in the amount of its sculpture and surpasses it in the variety and beauty shown in the three distinct styles to be found on its walls, styles which not only link Reims to all the other great French cathedrals, but also connect the cathedral sculpture of France with that of Germany. In this respect its place in mediaeval art cannot be over-estimated; fourth, that its ancient glass ranks (possibly we shall now have to say ranked) with that of Bourges and Chartres as the finest glass of the thirteenth century.

In size Reims is inferior to Amiens and Cologne, and in the interior it is less: pleasing than a number of Gothic cathedrals. But when a full summary is made of the points in which it excels, and those in which it is surpassed by contemporary churches, Reims will be found yielding to none (unless perhaps to Amiens) the first place in mediaeval art. If it had its contemplated spires, as it may possibly have had before the fire of 1481 , there could be no question of its superiority. That such a church should have been injured in the present war is most regrettable. It is to be hoped that the wound inflicted may someday be healed by a united effort upon the part of the whole Christian world.

Thursday, December 31. 9.30 a.m.
Joint Session of the Institute and the American Philological Association. The following archaeological papers were read:

1. Professor David M. Robinson, of Johns Hopkins University, Two Unpublished Vase Illustrations from Homer.

The Greek artist was never a mere illustrator, but in the writer's collection are two Greek vases which illustrate in a general way passages in Homer-
one the Circe story, the other the stealing of the horses of Rhesus. The first is a Cabiric vase from Boeotia, dating from the end of the fifth or the beginning of the fourth century b.c., on which the subject is treated in a manner characteristic of vases of this class. The painting is done in a brown-ish-black varnish, and the drawing of the figures of Circe and Odysseus is intentionally rude to produce actual caricature. The loom is here shown in considerable detail. There are a number of other Cabiric vases on which the Circe story is portrayed-an unpublished one in Boston, belonging to Professor Hoppin, one in the British Museum, one in the Ashmolean Museum at Oxford, and an unpublished vase in Chicago-and the popularity of the theme may possibly be explained by the scholium to Book I, line 916, of the Argonautica of Apollonius of Rhodes, which says that Odysseus and Agamemnon were initiated into the rites of the Cabiri. The spirit of caricature is apparent in most Cabiric vases, and another favorite subject is the battle of the pigmies and the cranes, a fact which may be accounted for by Herodotus' statement $(3,37)$ that the Cabiri themselves were represented as pigmies. A score or more of slides were shown on the screen, representing Cabiric vases in America and Europe which have comicepictures that are perhaps actual reproductions of burlesque performances connected with the worship of the Cabiri. There are caricatures not only of the Circe story and of pigmies, but of Perseus and Medusa, Bellerophon and the Chimaera, Chiron and Peleus, the Judgment of Paris, the Olympian deities, Cadmus' fight with the dragon (reminding one of Siegfried's combat with Fafner), dance-performances and acrobatic "stunts" on three-legged tables (which probably have nothing to do with the origin of the Greek drama, but remind one of Hippocleides' doings in Hor. vi, 129), foot-races, duels between warriors armed with shields and spears, banquets, wedding-scenes, etc. Many of these vases are still unpublished, and the writer expects to publish an article on Cabiric vases and caricature in Greek art.

The second vase is a red-figured hydria which illustrates the story of Rhesus, and which is of especial importance because its provenience is known to be Athens, thus showing the Attic origin of this scene, which occurs also on later vases in Trieste and Naples about which there are many erroneous statements in the books. From various evidence it would appear that this Attic vase goes back to the time of Euripides, and it is probable that the story was a favorite with the Athenians in the latter half of the fifth century, even if the tragedy which has survived under the title of Rhesus be thought to be later. It also shows that Greek art was perfectly familiar with the idea of copying. There are some fifteen or twenty similar cases of the copying or repetition of the same scene on vases, which makes very misleading the statement of various authors to the effect that there is no practical identity of design or scene in Greek art. When the Rhesus vase is published, the writer will discuss the whole subject of ancient copying of scenes on Greek vases.
2. Professor George Hempl, of Stanford University, Minoan Seals and their Greek Speech.

No abstract of this paper was received.
3. Professor A. L. Frothingham, of Princeton, N. J., The Origin of Hermes and the Caduceus.

No abstract of this paper was received.
4. Professor James M. Paton, of Cambridge, Mass., Notes on the Later History of the Erechtheum.

In this paper the attempt was made to determine the condition and surroundings of the Erechtheum during the period before the Venetian occupation in 1687, by an examination of later drawings, in part unpublished, and a comparison of their evidence with the narratives of travellers who visited Athens in the seventeenth century. It appeared that the temple, which had earlier been transformed into a Christian church, became a Turkish dwelling. The alterations then made included the walling up of the north and south porticoes, and the building of an addition along the north side. Before the arrival of the Venetians the north porch had become a powder magazine, and it continued to serve the same purpose until the Greek Revolution. After the Venetian siege the rest of the building which seems to have suffered considerably was abandoned and sank into ruin.
5. Dr. Edward Robinson, of the Metropolitan Museum of Art, New York, A New Acquisition in the Classical Department of the Metropolitan Museum.

No abstract of this paper was received. An article on the bronze statue recently acquired by the Metropolitan Museum will appear in a later number of the Journal.

## Thursday, December 31. 3 p.m.

1. Mr. G. C. Pier, of New York, The Temple of Hiraizumi, Japan.

No abstract of this paper was received.
2. Dr. Esther B. Van Deman, Associate of the Carnegie Institution in Rome, The Velia in the Time of Nero.

No abstract of this paper was received.
3. Professor George H. Edgell, of Harvard University, $A$ Newly Acquired Sienese Painting in the Fogg Museum, Cambridge.

The purpose of this paper was to describe two panels, in the Fogg Museum at Cambridge, Mass., representing the Annunciation. The panels have been attributed by Mr. Berenson, Mr. F. Mason Perkins, and Professor Venturi to the Sienese master Andrea Vanni. Though mentioned at different times by all these critics, the panels have never adequately been published, and no notice has been taken of them officially since they arrived in this country.

At one time in the possession of Count Fabio Chigi in the Saracini palace at Siena, the panels were sold, and eventually found their way to New York, where they were purchased by the Society of Friends of the Fogg Museum as an addition to the Museum Collection. Albeit Vanni was an humble master, he is not without importance in the history of art, and the Fogg Museum panels are excellent examples of his style. America is, therefore, enriched by one more example of the fine art of the Sienese trecento, and especially by a direct reflection of the great Annunciation, by Simone Martini, now in the gallery of the Uffizi.
4. Miss Georgiana G. King, of Bryn Mawr College, French Figure Sculpture on Some Early Spanish Churches.

This paper will be published in full in a later number of the Journal.
5. Mr. Richard Offner, of the University of Chicago, The Long Panels of Piero di Casimo.

No abstract of this paper was received.
6. Mr. F. R. Elder, of Hanover, Ill., Prayers to the Dead in the Early Church.

No abstract of this paper was received.
7. Mr. Francis A. Cunningham, of Merchantville, N. J., Daonos and the Babylonian God Ea.

The writer argued that the sixth name in the list of antediluvian kings given by Berosus should have been written Alooos, and that it stands for the god Ea.

Thursday, December 31. 8.30 p.m.
Joint Session of the Institute and the American Philological Association in Houston Hall, University of Pennsylvania.

1. Professor George H. Chase, of Harvard University, American Excavations at Sardis, 1913-14.

See A.J.A. XVIII, 1914, pp. 425-437.
2. Mr. Langdon Warner, Purposes and Problems of the Proposed American School in Peking.

The following papers were read by title:

1. Mr. William H. Holmes, of the National Museum, Washington, The Place of Archaeology in Human History.
2. Professor Allan Marquand, of Princeton University, Some Italian Renaissance Sculptures in Princeton.
3. Mr. Sidney Fiske Kimball, of the University of Michigan, Thomas Jefferson and the Origins of the Classical Revival in America.
4. Professor Mitchell Carroll, of the Archaeological Institute of America, Paul Bartlett's Pediment Group, "Peace Protecting Genius," for the House Wing of the National Capitol.

No abstracts of these papers were received.

# ARCHAEOLOGICAL NEWS ${ }^{1}$ 

# NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS 

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## GENERAL AND MISCELLANEOUS

ARCHAEOLOGY IN 1913.-In Cl. J. X, 1914-1915, pp. 99-105 and 147154, G. H. Chase reviews the progress of classical archaeology during 1913.

BULGARIA.-Recent Archaeological Work.-In Arch. Anz. 1914, cols. 416-429 (11 figs.) B. Filow reports upon archaeological discoveries and publications in Bulgaria in 1913 and 1914. During the military occupation by Bulgaria of the country extending from the Black Sea and Tchatalja to Saloniki, especial care was taken to study and record the remains of ancient and mediaeval buildings, sculptures, inscriptions, etc., and some of the results have been published. The monastery of St. Nicholas at Midiah, on the Black Sea, is entirely cut out of the solid rock, and has an interesting round cistern of elaborate design. Rock-cut tomb-chambers, similar to those on the coast of northern Bulgaria and the Dobrutsha, are numerous here. Some gold ornaments with fleur-de-lis design, probably parts of belt-clasps, were found by some soldiers at the village of Akalan, near Tchatalja, with a hoard of early Byzantine gold coins belonging to the emperors Mauricius Tiberius, Phocas I, and Heraclius I, hence of the period 613-641. The great basilica of St. Elias at Pirdop, the walls of which are standing to a height of 8 to 10 metres, has been cleared by the National Museum. It was originally built, in early Christian times (fifth to seventh centuries), of brick, and belongs to the class of early Bulgarian churches, of which St. Sophia at Sofia is the most important example, which stand architecturally between the Syrian-Asiatic and the Roman churches. Pirdop has the Roman feature of alternating pillars and columns between nave and aisles. Both aisles as well as the nave have apsides. The narthex measures $32 \times 14$ metres. At some time the church was rebuilt on the old lines but with walls in alternate courses of stone and brick, the

[^35]latter five bricks deep, and the enclosure was fortified. In the small Byzantine church at Bojana, southwest of Sofia, the original frescoes, of the eleventh and thirteenth centuries, have been recovered, by removing without destroying the two layers of plaster and fresco that had been put over them. A figure of Christ Enthroned of the thirteenth century, is a notable example. The contents of a tumulus-grave near Tsarovo, consisting of various gold ornaments and a ring with the first known Thracian inscription-as yet undeci-phered-are dated in the fifth century b.c. Other inscriptions are two Roman grave stones of the first century A.D., from Novae (district of Svishtov); three Greek honorary decrees found in the Byzantine fortifications of StaraZagora (Augusta Trajana); and two dedications to Zeus Zbelsourdos, probably belonging to the sanctuary of that god which was destroyed by L. Calpurnius Piso, proconsul of Macedonia in 57-55 B.c. In sculpture, a portion of a relief showing a figure of Hermes with the caduceus and bag and riding on a goat, with indications of a missing female figure, is of interest; also a grave stone from Mussamane (district of Widin), which is crowned by a huge pine cone and bears a relief of the genius of the dead. At Tchurek (district of Sofia) several hundred silver tetradrachms of Thasos and Maroneia were found,-largely barbarian mintage after the later type of Thasos tetradrachm (second century b.c.) with youthful head of Dionysus for the obverse. From Garvan (district oi Silistra, now in Roumania) are some hundred or more Roman denarii of the republic and the early decades of the empire.

CAUCASUS.-Archaeological Remains.-In Klio, XIV, 1914, pp. 391-392, T. Kluge reports briefly upon archaeological remains observed by him in the Caucasus in 1912. On the acropolis of Ani he found remains of a Roman building; at Karakala traces of Roman fortification walls, and near by on the right bank of the Araxes a pier of a Roman bridge. In Armavia a Greek inscription was photographed, as were the remains of the so-called temple of Zeus at Bas-garni. In Walaršapat was a collection of terra sigillata ware. At Kešiškent a stone was found with an Assyrian banquet scene carved on one side, and a winged man with three beasts of burden on the other. It had evidently been brought from a distance.

CONSTANTINOPLE.-Remains of Imperial Palaces.-The great fire in Stamboul in 1912, by destroying a great area of the superimposed modern city, disclosed vast remains of early Byzantine buildings, consisting of massive foundation walls, arches, pillars, halls and stairways, such as were already known in an adjoining part of the city and even used as cellars and cisterns in modern times. These remains are in danger of being at least covered up, if not destroyed, in the restoration of the burnt district, as has happened in the case of other important Byzantine remains, but what is now visible is being systematically studied and recorded, by representatives of the German Archaeological Institute. Observations on the Palace of Hormisdas, or Palace by the Sea, are of especial interest. Here is the great covered stairway, with two huge arches opening directly on the sea, which was reserved for the exclusive use of the emperors. The building, originally of the time of Constantine, is found to have been extended on the front as far as the sea-wall, with balconies, portals and arches, probably by Nicephorus Phocas (963-969). The gateway in his fortifications was destroyed in 1871, for some railroad work. (T. Wiegand, Arch. Anz. 1914, cols. 100-105; fig.)

CYPRUS.-An Inscription from Ceryneia.- On the north cōast of Cyprus, in 1910 and 1911, some fields on the site of ancient Ceryneia, in the quarter
 over for agricultural purposes, and the remains of important ancient buildings, in at least two superimposed layers, were found. Unfortunately the walls were destroyed before a ground plan could be made, but it is evident from the remains of a temple, a bath, and other public buildings, that this was the most important part of the ancient city, where the palace, the sanctuary of Aphrodite, etc., were situated. A limestone pedestal found in the temple enclosure has a basin-shaped depression on the top in which are the feet of a stone statuette, and an inscription in Cypriote Greek on the front. The date is in the fifth or fourth century b.c. It is a dedication by one "Ak $\nu$ s or "A ${ }^{\text {a }}$ ) , and dates from the fifth or fourth century b.c. (J. C. Peristianes, J. H. S. XXXIV, 1914, pp. 119-121.)

NECROLOGY.-Albert Babeau.-Albert Babeau, born at Cambrai in 1835, died in Paris, January 1, 1914. He devoted himself to history, especially the history of Troyes and Champagne, and was the author of numerous works on the general conditions, the buildings, the works of art, the artists and the artisans of mediaeval and later times. (R. Arch. XXIII, 1914, p. 432, from Chron. Arts.)

Constantinos Carapanos.-The former minister of finance, Constantinos Carapanos, died in Athens in April, 1914, at the age of 74 years. He is best known by the two volumes in which he published, with the assistance of others more learned than himself, the collection of fine bronzes, many of which he discovered at Dodona and exhibited in 1878 at Paris. (S. R., R. Arch. XXIII, 1914, p. 430.)

Alexander Conze.-A tribute to the memory of Alexander Conze, the Nestor of German archaeologists, who died on July 19, 1914, in his eightythird year, and an outline of his life-long and priceless services to every branch of archaeology and to the German Archaeological Institute in particular, is given in Arch. Anz. 1914, cols. 117-120. The death in battle, of H. Lattermann, E. Schmidt, and F. Toebelmann, in August and September, 1914, is recorded, ibid. cols. 443-444.

Isidoro Falchi.-Isidoro Falchi, author of articles and monographs on the coins and other antiquities of Vetulonia and of various other articles on numismatics, died in 1914 at his birthplace, Moritopoli Valdarno, at the age of 76 years. (R. Ital. Num. 1914, p. 465 f.)

Adolf Fischer.-Adolf Fischer, born at Vienna in 1857, travelled much in Africa and eastern Asia and was attached, as scientific adviser, to the German embassy at Pekin. He collected much ethnographic material which he gave to the city of Cologne, thereby founding a Museum of Asiatic Art, which was established, with Fischer as its first director, October 26, 1913. Fischer died at Méran, in April, 1914. His widow, who had long aided him in his work, becomes directress of the museum. (S. R., R. Arch. XXIII, 1914, p. 431.)
J. I. Manatt.-James Irving Manatt, Professor of Greek at Brown University, died February 14, 1915. He was born at Millersburg, Ohio, February 17, 1845, served in an Iowa regiment during the Civil War, and in 1869 was graduated from Iowa College. In 1876 and 1877 he studied at Leipzig. He was Professor of Greek at Dennison College from 1874 to 1876, and at

Marietta College from 1877 to 1884. He was Chancellor of the University of Nebraska from 1884 to 1889, and from 1892 Professor of Greek at Brown University. From 1889 to 1893 he was the United States Consul at Athens. He published The Mycenaean Age with Dr. Tsountas in 1897; and Aegean Days in 1913; and edited Xenophon's Hellenica in 1888. . (Nation, February 18, 1915, pp. 203-204.)
Mariano Mariani.-Commendatore Mariano Mariani was born in 1838, at Motta Visconti and died June 5, 1914, at Pavia. He contributed many articles on numismatics to the $R$. Ital. Num. and other publications and was the author of various writings on historical and legal subjects. (G. deli' Acqua, R. Ital. Num. 1914, p. 466 f.)
L. A. Milani.-The distinguished numismatist, L. A. Milani, was born January 27, 1854, at Verona, and died October 9, 1914, at Florence. In 1879 he founded the Museo Archeologico at Florence, and in 1907 became Superintendent of Excavations in Etruria. He contributed many articles to the R. Ital. Num., Not. Scav., and other periodicals. Primarily a numismatist, he was also accomplished in other branches of archaeology. (L. Cesano, R. Ital. Num. 1914, pp. 461-464.)
Max Rooses.-Max Rooses, for thirty years curator of the Musée Plantin, and member of the Royal Academy of Belgium, died at Antwerp in July, 1914. He was known particularly for his work on Rubens, a publication in several volumes, and for similar works on Van Dyck and Jordaens. He was also the author of a work on the painters of the Low Countries in the nineteenth century, and of the recent volume on Flemish Art, issued by Hachette in the "Ars Una" series. He died at the age of 75 years.

Constantinos Sathas.-Constantinos Sathas, born in 1842 at Galaxidi, died at Paris, May 25, 1914. He was the author of numerous articles and monographs on Greece and the Greeks in the Middle Ages. (R. Arch. XXIII, 1914, p. 429 f.)
ROUMANIA.-Discoveries and Publications, 19r3.-V. Parvan's survey of a year's archaeological activity in Roumania, in Arch. Anz. 1914, cols. 429-442 ( 10 figs.) mentions the excavations going on in the interior of the Roman camp at Ulmetum, and tells of various finds made elsewhere, many of which are in private hands. Two reliefs of the Thracian Horseman were found in the Roman camp at Topalu (south of ancient Carsium) and at Nicolitel (south of ancient Noviodunum). The remains of the Roman castellum and vicus at Topalu are being used as a stone quarry for modern building, and two canals found there with the foundations of a large brick building were almost destroyed after discovery. Underground Roman conduits have also been found at Caranosuf (Histria). Another Roman settlement has been found at Topesti-Vânăta, district of Gorjiu, in Little Wallachia. At Constanza (ancient Tomi) there were found at the harbor remains of a large Graeco-Roman building which appears never to have been finished, to judge from the state of the marble architectural members. The Greek inscription on the architrave mentions M. Servilius Fabianus, who was governor of Moesia Inferior in the year 162. Two statues of no great merit were found here and the funeral relief of Ti. Claudius Saturninus, duplicarius alae, in the form of the funeral banquet scene, with carefully wrought architectural framing. Here also were found an idealized female portrait head, a small
uninscribed altar with relief of a herm-like figure with folded arms, and a boundary stone of the land of Tiberius Claudius Firminus, of the second century. A terra-cotta lamp with a relief of Achilles standing in his chariot and dragging the body of Hector, was found at Tulcea (southeast of ancient Salsovia, Dobrusha). Stone fragments from Adamklissi (ancient Tropaeum Trajana) include a long Latin inscription not yet seen by the writer. Two lead weights were found at Tomi, one with a large eight-pointed star of the Dioscuri, the other with an inscription of the Roman epoch, and two others at Callatis. Also from Tomi is a marble tablet inscribed: M. Iulio Tertullo. vet. coh. I Commag. Mitridates mil. coh. eiusdem et Barales b. m. f. c. The many finds of coins in Moldavia include the following: At Văleni (district of Roman), 3760 Roman silver denarii, not yet available for study as a whole, but dated by the ten which have gone to the National Museum as from Vitellius to Commodus; at Filionesti (district of Putna), a silver coin of Dyrrhachium, a consular coin of the Norbana family and a denarius of Constantius; at Unguri-Găiceana, two republican and two imperial coins; at Sascut (district of Putna), 68 coins of the republic, naming forty-two families, and one stamped CAESAR ANGVSTVS, which dates the whole in the year 20 b.c.; at Bestepe, near Salsovia, a pot of small bronzes of Theodosius, Arcadius and Honorius, with a few of Constantius, Valens and Valentinian; and in little Wallachia, at Zătreni (district of Valcia), a large find of wellpreserved silver coins of the republic, 37 of which belong to twenty-nine families.
SERVIA.-Archaeological Work in 1913.-The report of N. Volić (Arch. Anz. 1914, cols. 411-412), on archaeological work in Servia in 1913 mentions the addition to the national museum at Belgrade of coins, ornaments, etc., from various parts of Servia, and of Greek and Roman inscriptions, stone reliefs, etc., from Durazzo in Albania. The excavations in the Roman camp at Stojnik have made a cross-cut through the two ditches protecting the south side, and laid bare parts of the east and west walls and a large portion of the interior. Here are many buildings of various kinds, one having a plastered floor and painted walls. M. M. Vassirs (ibid. cols. 413-416) discusses the work of 1913 at Vinča. Here, in the lowest strata at a depth of 8 to 10 metres below the surface, are remains of smelting ovens and ores of lead (galenite) and mercury (cinnabarite) which prove that the earliest settlement was made by men well acquainted with the art of smelting as applied to different ores, and suggest that this knowledge was not a native development, but was brought by men from the southeast, who came here for the express purpose of using the metals of the neighboring mountain of Avala, where prehistoric mines exist. This spot, lying not far off the trade route of the Danube, was, therefore, a link between the native civilization and the higher culture of other lands.

## EGYPT

EXCAVATIONS IN 1913.-A brief summary in English, of the work accomplished during the year by French, English, American, Egyptian and Roumanian excavators, in Egypt is given by C. C. Edgar in Arch. Anz. 1914, cols. 292-297. The sites were: Alexandria (necropolis of Hadra); the Fayoum (temple of Pnepheros, the crocodile god, almost intact, with walls
of crude brick, wooden door, and courtyard containing the well and remains of shade trees); Libya (Paraetonium, where Alexander landed for the journey to the oasis of Ammon, rock-tombs of the first century A.D. and graves of the Roman and Byzantine periods, excavated by Oric Bates for the Libyan Research Account, with a view to studying ultimately the earlier civilization); the Suez Canal (temple at Pelusium, probably that of Zeus Casius, described by Achilles Tatius); Naucratis (remains from an Egyptian temple, which may have stood in the Great Temenos); Tell Balamoun (supposed to be the site of Diospolis Inferior); Heliopolis (tombstones with Jewish names); Saqqarah (grave monuments of brick in the form of altars). Among the booty from the GraecoRoman cemetery at Kom Abou Billou is the stele of one Isidorus, a young man of the Antonine period, with short beard and curling hair, who is represented as a Dionysus, and several busts of the same period, which appear to have been placed within or in front of the tombs. The new Byzantine Branch of the Egypt Exploration Fund has been active and will publish its results in the new Journal of Egyptian Archaeology. J. E. Quibell has been appointed curator of the Cairo Museum, in succession to Emil Brugsch Pasha, who retires after an activity of forty years.
LISHT.-The Excavations of 1913-1914.-In B. Metr. Mus. IX, 1914 ( 19 figs.), A. C. Mace describes the excavations of the Metropolitan Museum at Lisht during the season of 1913-1914. It was found that the ancient town south of the north pyramid was much more extensive than had been imagined. The houses were of crude brick and mostly of one story with narrow passageways between them. Household objects of various kinds were found in great quantities. Beneath these houses were burial pits of the twelfth dynasty, about one hundred and thirty of which were cleared. Some objects of interest were found in them such as a magic wand of ivory, a standard gold weight of porphyry with the cartouche of Senusert I, a curious pottery head with closed eyes which had apparently been used as a jar stopper, etc. On the east side of the pyramid a considerable space was cleared between the enclosure wall and the pyramid, and the pavement found well preserved.
MEROE.-The Excavations of 1914.-In Ann. Arch. Anth. VII, 1914, pp. 1-10 ( 9 pls. ), J. Garstang reports upon the excavations at Meroe in 1914. The whole northern part of the city has now been uncovered and the débris piled around the outer main wall. The main entrance led through the northern wall by an avenue of trees to the centre of the city where on the left hand was a public building fronting or replacing the portico of the sixth or seventh century b.c. Opposite was a building which may have been an observatory. The palace lay immediately to the left of the main gateway, and opposite it was a cemetery with a crematorium. Both gateways in the northern wall were in use at the same time. When the city walls were built in the middle Meroitic period the city was laid out afresh, but a century or so later it was replanned and the buildings faced with brick. Two columns in the building called an observatory seem to have been used for astronomical purposes. Outside of the city three sites were examined, and near the village of Hamadab two large stelae inscribed with Meroitic characters were brought to light. The larger of the two is 2.58 m . high, with a maximum width of 1.16 m ., and weighs three and one half tons. The inscription consists of forty-two lines well preserved. Above are sculptures representing a king and a queen
in two scenes of adoration. Below them are eleven captives lying bound in a row. The smaller stone is not so well preserved. The following chronological periods are now certain: Early Meroitic, 650-400 в.c., from which date the foundations of the palace, the earlier temple of the Sun, as well as the original temples of Isis and of Amon. For a century or more at its conclusion the court did not reside at Meroe. Middle Meroitic, 300-1 b.c., during the first half of which were built the stone walls of the city, the Lion temple and adjacent shrine, and other buildings; and during the second half the royal palace, observatory, baths, temples of the Sun, and of Isis, and many other buildings. Late Meroitic, 1-350 A.D., in which various buildings were erected and earlier structures restored. Ibid. pp. 11-22, W. J. PHy-thian-Adams examines in detail the buildings and the evidence for dating them, and gives a transliteration of the long inscription and an index of words. Ibid. pp. 23-24, A. H. Sayce shows that the stele was set up by Queen Amonrênas and Agini-rherhe, the hereditary king of Roman Cush, to commemorate certain campaigns. It apparently gives the Ethiopian version of the war with the Roman Petronius, 24-22 b.c. It also refers to the founding of the kingdom in the time of "Amonap," or Amen-hotep III.

## SYRIA AND PALESTINE

JERUSALEM.-Excavations in 1913-1914.-In Z. D. Pal. V. XXXVII, 1914, pp. 290-291, A. Dalman reports in regard to the excavations that were undertaken in Jerusalem during the winter of 1913-1914 by Captain Weil, with the support of Baron Rothschild of Paris. The rock was laid bare at the south end of the eastern hill, or City of David. The water channel from Gihon, already discovered by Schick, was traced some distance farther. Some graves and cisterns were found. The tomb of David, which some think stood in this neighborhood, was not discovered; but extensive quarrying was found to have gone on in this region.

SHECHEM.-Recent Excavations. - In Anzeiger der phil.-hist. Klasse der kais. Akademie der Wissenschaften zu Wien, VII, 1914, March 4th, E. Sellin gives a preliminary report in regard to the excavations at the mound of Balāta near Shechem. He discovered a wall of hewn blocks, some of which are as much as 2.20 m . in length. It consists of nine courses on the average and rises to a total height of 6.50 m . It rests upon a bed of packed clay, and at the north ends in a projecting tower which flanked a city gate. There can be no doubt that the mound of Balāta conceals the remains of ancient Shechem. Four periods of occupation are recognizable: a Canaanite, an early Israelite, a late Israelite and a Greek occupation (see also Z. D. Pal. V. XXVII, 1914, p. 290).

## ASIA MINOR

SMYRNA.-A Hoard of Coins of Temnos.-A hoard of about three hundred coins of the third century b.c., chiefly small coppers of Temnos, was found in the neighborhood of Smyrna, and disposed of in various lots in 1913-1914. A group which came into the possession of J. G. Milne, with another purchased
at Sothebys, February 3, 1914, is described briefly by him in Num. Chron. 1914, pp. 260-261. He identifies as part of the same hoard a group described in Mb. Num. Ges. Wien, 1913, p. 164.

SOUTHWESTERN ASIA MINOR. - Prehistoric Remains.-In B.S.A. XIX, Session of 1912-1913, pp. 48-60 ( 6 figs.), H. A. Ormerod continues (see B.S.A. XVI, pp. 103 ff .; XVIII, pp. 80 ff .) his description and discussion of prehistoric objects from southwestern Asia Minor. From Tchukurkend, on the eastern side of the Beishehir lake, come two steatopygous stone figurines, two celts, a polisher of serpentine, a weight and three terra-cottas (a human face and two animals). From Isbarta is a small clay figure of a warrior and a vase, from Thyatira a rude seated clay statuette and three vases, from Adalia a figurine of coarse marble, and from Kul Tepe, near Caesarea, a clay figurine, now in the British Museum. The steatopygous figurines indicate connections with the northwest; the vases from Thyatira show that the culture of Yortan extended southeastward; the figure from Kul Tepe (if the information as to its provenance is reliable) offers evidence as to the connections of the Milyas with eastern Asia Minor.

## GREECE

ARCHAEOLOGICAL WORK IN 1913.-A summary of the archaeological work of various nations in 1913 in Greece, including Crete, Epirus, Thasos and other north Aegean islands, and in Asia Minor, is published by G. Karo in Arch. Anz. 1914, cols. 121-174 (7 figs.). This is especially full for Corfu, Tiryns, Gortyn, Delos and Thasos, and deals also with Attica (Athens, Laurium, Oropos); Aulis; Euboea; Thebes; Mycenae; Thessaly (Pagasae-Demetrias, Volo, Larissa); Cephallonia; Nicopolis-Actium; Mytilene; Chios; Elis; Corinth; Phaestus, Prinia, and the cave of Kamares on Mt. Ida, in Crete; Delphi; Pergamon; Didyma and Miletus; Ephesus; Colophon; Phocaea; Aphrodisias.
MISCELLANEOUS DISCOVERIES.-In 'Apx. 'E $\phi .1913$, pp. 234-237, are the following brief reports of discoveries in 1913:1, Areadia (A. S. Arvanttopoullos). Trial excavations at Orchomenus by the French School have brought to light remains of the temple of Artemis Mesopolitis and the pedestal of a large altar, foundations and columns of a second temple, the bouleuterion and several decrees of proxenia, an interesting theatre in fair state of preservation, and ruins of other ancient buildings. 2, Sunium (V. Staës). Excavation of the embankment for the widening of the precinct of Athena (cf. A.J.A. XVII, 1913, p. 437 f. ) led to the discovery of a rectangular well or pit, 2 m . by 3 m . at the top and more than 10 m . deep, cut out of the solid rock. 3, Epirus: (a) Byzantine monuments (F. Versakes). Seven Byzantine churches of northern Epirus are briefly described. (b) Excavations (D. Evangeludes). Exploration of northern Epirus has brought to light numerous ancient sites, inscriptions, bronze coins, and some sculpture. An inscription from Tepelenion gives us the name of a new Epirote tribe, $\tau \boldsymbol{\delta}$ кouv̀̀ $\tau \hat{\omega} \nu \Sigma \nu \gamma \gamma \delta \nu \omega \nu$. (c) Nicopolis (A. T. Philadelpheus). Octavian's splendid temple to Neptune and Mars, commemorating the victory at Actium, has been located. It was of the Corinthian order, measuring 53 m . by 25 m ., but badly demolished. Interesting finds, including many fine lamps with plastic decorations, were
made in upwards of two hundred graves. Two villas were uncovered. The outlook for future excavations is most promising. 4, Thermon (K. A. Rноmaios). Several more buildings of the second millennium b.c., mostly of elliptical plan, have been excavated (cf. A.J.A. XVII, 1913, p. 438). "Mycenaean" pottery of local manufacture was found even in this remote locality. 5, Thessaly (A. S. Arvanitopoullos). The sites of Metropolis, Chyretiae, Mylae, Mondaea, Azoros, Olympias, and Charax-Lapathous have been identified. A museum has been established at Gonnus. 6, Upper Macedonia (N. G. Pappadakis). More than thirty ancient sites have been located, none of them dating from earlier than Roman times. 7, Chios (K. Kourouniotes). Excavations have been carried on near Latoni in a cemetery of the early fifth century b.c.; at the ancient Phanae, where the Ionic temple of the Phanaean Apollo and its precinct were uncovered; and near Pyrgion, where an archaic Ionic temple was located. 8, Amphiaraeum (V. L[eonardos]). Parts of certain roads and the remainder of a building, partly excavated in 1909, were cleared. Among the finds was the torso of a statuette of Amphiaraus.

ALEA and STYMPHALUS.-Notes.-Some observations made during a recent visit to Alea and Stymphalus are reported by H. Lattermann in Arch. Anz. 1914, cols. 105-106. The walls of Alea, which seem to date from the time of the Achaean League, have the peculiarity that the towers are not connected with the curtains. At Stymphalus, the plan made by Curtius is found to be about $60^{\circ}$ out of position, the long axis of the town pointing N.E., not Y.S.E. A gate was found in the west wall below the acropolis; the relation of the foundations of the temple of Artemis to the town plan was studied, and the fine exedra at the southeast edge of the hill was drawn in plan and elevation. Near the village of Kionia, north of Stymphalus, a rock-cut throne of the gods was found above a tomb chamber.

ARKALOKHORI.-A Minoan Sacred Cave.-In B.S.A. XIX, Session of 1912-1913, pp. 35-47 (9 figs.), Joseph Hazzidakis describes a cave near Arkalokhori, a short distance southwest of Lyttos, in central Crete. No complete vases were found. Of the fragments, many were from bucchero cylixes, decorated with rings and irregular spirals made by burnishing with a blunt tool. Other fragments were of light-colored clay, decorated in similar fashion, and still others were painted. Most of the objects found were votive bronze blades and double axes (one axe is of silver), of Early Minoan date, though the blades are unusually long and thin; they were probably not made for use, but as votive offerings. The bronze is almost pure copper, undoubtedly of Cretan origin. That votive double axes, dating from Early Minoan to Late Minoan III times, have been found indicates that the Cretans preserved the same cult, and were, therefore, the same people, throughout the Bronze Age.

ATHENS.-Recent Discoveries in the Ceramicus.-In the excavations made by the German Archaeological Institute along the modern Piraeus road outside the Dipylon Gate, in April-June, 1914, two stones were found marked OPO§ KEPAMEIKOY, which evidently defined the side of the tomb-lined street and show it to have been about 38 m . wide. Some fifth-century burial plots of public personages have a width facing on the street of 6 to 7 m . and a uniform depth of 12 Attic feet. Behind them is a common burial ground.
raised to a considerable height by successive filling up and re－using，and by the débris of houses destroyed in the siege of the city by Sulla in $87-86$ b．c． A larger and more elaborate structure，of the middle of the fourth century， may be the tomb of the general Chabrias，who died 357 в．c．Here were found the torso of a recumbent hound，and a large marble lecythus．In the third century A．D．，when the level had already risen about 3 m ．，the width of the street was greatly lessened by buildings set in front of the old ones and made of their material．Still；in early Christian times，a late Roman building was taken for a community burial place，each family having a uniform space 90 cm ．deep．The funeral offerings here illustrate the latest stage of Athenian pottery．Among the objects found in the course of the work is an ostracon used in the banishment trial of Damon，son of Damonides，who was a friend of Pericles．（A．Brueckner，Arch．Anz．1914，cols．91－95．）In＇A $\rho \chi$ ．＇E $\phi$ ． 1913，pp．183－193（12 figs．），K．Kourouniotes describes fourteen graves excavated under his direction in the Dipylon cemetery at Athens．Some contained sarcophagi，one a simple marble urn，some were simple pyres，and some were covered by tiles．All seem to date from the fourth century b．c．， like the monuments with which they appear to be connected．Among the finds were seven strips of lead inscribed with curses（not yet deciphered）， and a marble grave lecythus of Hesychia，decorated with a bas－relief and beautiful designs in color，which were still well preserved．

Miscellaneous Discoveries．－In＇A $\rho \chi$ ．＇E $\phi$ ．1913，pp．193－209（28 figs．）， K．Kourouniotes publishes various antiquities recently discovered in Athens and Piraeus．In Athens：two fourth－century grave－reliefs；seven grave－reliefs of different periods；fifteen small stelae with sepulchral inscriptions，chiefly of． Roman times；a triangular prism of Pentelic marble with a shield in relief on each of its three faces，evidently part of a pedestal for some colossal monu－ ment like the Nike of Paeonius；a votive inscription dated by the archon，of 59－58 в．c．；a votive inscription to Isis，Sarapis，Anoubis，and Harpocrates； a statuette of a woman sitting on a rock above a cave；a head of a youth，of the fifth（？）century в．c．；a youthful head of Dionysus of the Roman period． In Piraeus：seventeen grave－stelae，chiefly of the fourth century b．c．；a frag－ ment of a Roman sarcophagus；a boundary stone of a public rendezvous with an early fifth－century inscription，$\Lambda E \Sigma X E O N \triangle E M O ミ I O N O P O 乏$ ．

CORFU．－Recent Discoveries．－During the past season Professor Dörpfeld continued his excavations at the site of the archaic temple at Corfu where the Gorgon pediment was found．Several interesting discoveries were made， including fragments of the gutter ledge of the temple，of terra－cotta，with traces of leaves and rosettes upon them．Two inscribed tiles were found，one with the words EПI $\triangle I O N$ ，and the other with $E \Pi \mid A 乏$－ $K \wedge H \Gamma I O \triangle \Omega P O Y$ ．They were probably baked when Dionysius and Asclepio－ dorus were prytaneis．Search was made for further traces of the prehistoric settlement found last year on Cape Kephali．（Nation，October 1，1914，p． 416．）

CORINTH．－Discoveries in 1914．－During the fall of 1914 excavations were carried on at Corinth by the American School of Classical Studies with satisfactory results．A fine terrace wall，in places still preserved to a height of six courses，was uncovered．This may have been the eastern boundary of the market－place．Parallel to it and a short distance away was an excellent

Roman wall. Both faced inwards. Four interesting pieces of Roman sculpture came to light in the course of the excavations: 1, A nude statue greater than life size and almost perfectly preserved probably represents Gaius Caesar. The right arm was broken off, but was found lying beside the statue, which is still firmly attached to its base. The left foot is slightly advanced; the right arm hangs at the side, while the left is bent. Drapery passes over the left shoulder. 2, A companion statue, of which the head and torso are preserved, was probably intended for Lucius Caesar. 3, A statue of a Roman emperor wearing an elaborate cuirass was discovered built into an early Byzantine wall. The head is missing, as are the legs below the knees. The workmanship is good. 4, A perfectly preserved head, probably representing Augustus veiled as pontifex maximus, was also found. It is slightly bearded. It is of the finest grade of Pentelic marble, but does not seem to belong to the torso just mentioned. (Letters from E. H. Swift and C. W. Blegen.)

KAMÁRES.-The Kamáres Cave.-In B.S.A. XIX, Session of 19121913, pp. 1-34 (12 pls.; 8 figs.), R. M. Dawkins and M. L. W. Laistner describe the complete excavation of the Kamáres cave by the British School at Athens in 1913. The cave is described in detail. In the small inner cave some rude walls, of uncertain date, were found. In the outer cave were several boulders, which had fallen in very early times. The ancient offerings were placed about the boulders and in irregularities of the walls of the cave. The offerings were almost exclusively pottery, chiefly of Middle Minoan I and II styles. Very few objects of earlier or later date appeared. The pottery was badly broken, but some vases are reconstructed. Few shapes are found, and evidently the cave was a sanctuary, not a dwelling. Specifically votive objects, such as those found in the cave on Mt. Dikte, near Psychro, and in the Idaean cave, were wanting. The objects found in the cave near Psychro were almost all Late Minoan, those found in the Idaean cave almost exclusively Archaic Greek. A chronological sequence in the use of the three caves is observed. There were, however, other cave sanctuaries in Crete.

MEGARA.-Proxeny Decrees.-In B.S.A. XIX, Session of 1912-1913, pp. 82-88, R. M. Heath publishes three new proxeny decrees found in the wall of the castle on the hill of the ancient Minoa, of Megara. Two of these are dated in the year of Pasidorus and are in identical characters, the third, of the year of Antiphilus, is in slightly larger letters. The names of the "kings" are new. The first two inscriptions mention a board of five strategi (different ${ }^{\circ}$ from those that existed under Pasiadas, Diogenes, and Apollonidas), the third a board of six, identical with the board that existed under Apollodorus Euklias, and Theomantus. Apparently the year of Antiphilus marks the cessation of annual boards of five, and the substitution of boards of six, possibly quinquennial. Only one board of six is known.

THASOS.-The Excavations of 1913.-In C. R. Acad. Insc. 1914, pp. 276305 (9 figs.), C. Picard and C. Avezou describe the excavations at Thasos in 1913. The city wall was carefully examined and many new facts about it learned. In the west wall a new gate was discovered, to which was given the name Gate of Lions, from two large groups found near by each representing a lion attacking a bull. It was apparently closed up in the second century B.c. A small oblique gate, 2.68 m . wide, with an inner stairway was also discovered in the north wall. In the "Hypostyle Hall" and its vicinity various
objects came to light including coins of imperial date, amphora stamps. and a colossal torso of good Hellenistic workmanship, but the purpose for which the building was used has not yet been ascertained. Near the church of


Figure 1.-Archaic Gutter Tile from Thasos

Hagios Nikolaos a good foundation wall was found, and not far away a large Roman mosaic, inscriptions with dedications to $\theta \epsilon o i ̂ s ~ \pi a ̂ \sigma \iota$, and to Zeus Boulaeus, Hestia Boulaea, Athena Organe, and Zeus Telesiergus, and a.


Figure 2.-Bronze Figure from Thasos relief representing griffins slaying a deer, and above in a row small figures of divinities. This relief had adorned an altar of Cybele. The work at the Prytaneum was not completed, but certain details werelearned about it, and about an earlier prytaneum built on the same site at the beginning of the fifth century b.c. Some of the terra-cotta gutter tiles, each 63 cm . long and 28 cm . high, belonging to the earlier building were found. They are decorated with mounted warriors, dogs, rabbits, and eagles all in rapid motion (Fig. 1) and are Ionic in style. Fibulae, fragments of Melian vases, and a very archaic bronze statuette of a libation pourer (Fig. 2) were also discovered, as well as several marble heads of later date. Among the inscriptions was one in honor of a certain Nossicas -Heradus for saving citizens of Lampsacus captured in a naval battle and paying the expenses of their return home.

## ITALY

RECENT ARCHAEOLOGICAL WORK.-A survey of publications on Italian archaeology appearing in 1913 is given by R. Delbrueck in Arch. Anz. 1914, cols. 174-205 (13 figs.). They are reports of discoveries and discussions and deal with the prehistoric and early periods in the Lago di Varese,

Padua, Bologna, Sassoferrato and Bisentium; Modena (Greek bronzes); Ravenna (San Vitale); Venice (portrait of Byzantine emperor); Southern Etruria (roads); Veii; Leprignano (native inscribed vase); Rome (painter Dosio, church of SS. Cosmo and Damiano, Arch of Constantine, columbarium of the Via Appia, Syrian sanctuary on the Janiculum, sculpture in the museums); Hadrian's villa; villa on the Alban Lake; Ostia (new Guide); Velletri; Posilippo; Pompeii (pomerium); Apulia (early period, Lecce, Barletta); Melfi (sarcophagus); Reggio; Sicily (Sicel remains, archaic Greek fibulae, bronze plate at Gela, Hellenistic relief at Messina); and Sardinia (bronze statuettes, development of dolmens, connection with Egypt, etc.).

ALBANO.-Ancient Remains.-In Studi Romani, II, 1914, pp. 228-232, G. Mancini publishes two sarcophagi of lapis Albanus found at Albano, which show the Roman influence on Christian art. He also gives an account of the excavations in the amphitheatre of Domitian. In one of the entrances an oratory or small church was found with paintings including representations of S. Nicolas and S. Pancrazio, protectors of the city of Albano.

ARPINUM.-A Hoard of Republican Coins.-Four kilometres to the eastward of Arpinum, near the Monte Nero, there was found a little below the surface of the ground a jar containing 97 republican coins, mostly asses, in bad condition. With them is a bronze coin of Philip IV (1628), apparently mingled with them during the excavations. The hoard appears to belong to 130-120 b.c. (G. Pierleoni, Not. Scav. X, 1914, pp. 448-449.)

BARI.-Vases from Canusium.-The vases and other objects found in tombs at Canosa (Canusium) in Apulia, and now in the museum at Bari, are published by M. Jatta in Röm. Mitt. XXIX, 1914, pp. 90-126 (3 col. pls.; 17 figs).

BASCHI.-A Brick Stamp.-In connection with a tomb near le Macee (Not. Scav. X, pp. 113 ff .) a brick stamp has been found of the fifth indictio (Sept. 1, 526-Aug. 30, 527). (G. Q. Giglioli, Not. Scav. X, 1914, pp. 439440.)

BOIANO.-Oscan Inscriptions.-In Not. Scav. X, 1914, pp. 480-484, A. Maruri publishes two tiles with Oscan inscriptions, from Boiano, the site of the ancient Bovianum Undecimanorum.

CAMPANIA.-Oscan Inscriptions.-In Not. Scav. X, 1914, pp. 405-410, A. Maruri publishes three Oscan inscriptions from Venafrum, Teanum and Cumae. The first of these is on a handsome patera decorated with a head of the youthful Heracles in relief, surrounded by a double border of leaf ornamentation. Ibid. pp. 472-476, he publishes a fragment of a defixio from the necropolis of Cumae, of which parts of six lines are preserved.

CAPRANICA DI SUTRI.-Remains of a Villa Rustica.-Near the station and on the left of the railroad from Rome the remains of a large villa rustica were brought to light, fronting on a public road paved with blocks of basalt. At one end is a well preserved bath, consisting of the usual rooms, with a hypocaust, and mosaic pavements. There are other rooms for the various purposes of such an establishment, one of which has channels in the floor and perhaps contained a press (trapetum). A water pipe bore the inscription P. Clodius Verandus fecit, which is noteworthy as mentioning a plumbarius of free birth.

Various small objects were found and a few coins, dating from Domitian (?) to Constantine. (R. Paribeni, Not. Scav. X, 1914, pp. 379-381.)

CESI.-A Sepulchral Inscription.-The discovery of a sepulchral inscription to L. Sentius Pietas, of the middle of the first century of the empire, adds to our carmina epigraphica four elegiac distichs. The gentile name Sentius occurs for the first time in Carsolae, although it is common in Etruria. The cognomen Pietas is found also in C.I.L. III, 8789 and 9418 . (G. Q. Giglioli, Not. Scav. X, 1914, pp. 361-362.)

DISO.-A Messapian Inscription.-In Neapolis, II, 1914, pp. 1-16, F. Ribezzo describes a dedicatory Messapian inscription (perhaps the latest one extant, being not older than the first century of the Roman empire), found at Diso, south of Otranto, and the light it casts upon the population of Apulia.

FRANCAVILLA (LECCE).-An Ancient Necropolis.-The contents of a tomb found near Francavilla and the discovery near the same place of a necropolis dating. from the fourth and third centuries b.c. receive brief notice in Neapolis, II, 1914, p. 118.

ISCHIA DI CASTRO.-Ancient Dwellings and Tombs.-The chance discovery of an ancient tomb led to systematic excavations in the district called Lacetia, which probably formed part of the territory of the ancient city of Vulci. In an area of 80 by 100 m . there were found remains of primitive dwellings, tombs and pits, probably for the storage of grain, besides ditches for draining the village site. Among the finds was a black-figured Attic amphora, not earlier than the end of the sixth century b.c. It is 0.40 m . high and provided with a cover. On each side are paintings which seem to form a single group. One represents a tree, beneath which are a wild boar and two stags. In the tree is a man armed with a sword, who is looking towards two wild beasts in threatening attitudes, a wolf and a lion. On the opposite side is the centaur Chiron, facing the other group, but with a calm and unruffled demeanor. Behind him is a tree, which serves to connect the two scenes. It seems to be impossible to associate the pictures with any known myth, and it is conjectured that the artist's purpose was to contrast the calmness of the divine centaur with the timorousness of the mortal in the tree. Some other smaller vases and objects of various kinds also came to light. (G. Q. Giglioli, Not. Scav. X, 1914, pp. 363-378.)

LIGURIA.-A Neolithic Settlement.-A brief account of new neolithic settlements in the Ligurian Alps is given by A. Issel in B. Pal. It. XXXIX, 1913, pp. 130-137.

LUSTIGNANO.-Ȧn Etruscan Statuette.-An Etruscan bronze statuette of a man 15.5 cm . high was recently found at Lustignano (Pisa). (Boll. Arte, VIII, 1914, Supplemento, p. 48.)

MOLFETTA.-A Neolithic Site.-A neolithic site has been discovered at Molfetta, according to a note in Neapolis, II, 1914, pp. 118-119.

MONTE SAN PIETRO.-Italiote Tombs.-At* the Monte San Pietro near Crispiano, in the territory of Taranto, a series of Italiote tombs has been found, containing vases and bronze objects. They point to the existence of a small town at that point from the latter part of the fourth to the early part of the third century b.c. Among the vases is a red-figured lecythus,
0.21 m . high, with a painting of an androgenous Eros, wearing a headdress and pearl ornaments. It holds in its hands a garland and a phiale and is standing before a stele. Behind it is a small plant and in the field two phialae. (G. Bendinelli, Not. Scav. X, 1914, pp. 417-422.)

MORLUPO.-Remains of Ancient Buildings.-In the district called "il Muraccio," about a kilometre back of the station of the tramway running from Rome to Civita Castellana, excavations revealed a series of buildings of different epochs. Those of the republican period, a wall of squared blocks of tufa with fragments of terra-cotta reliefs and sculptures, probably belonged to a small temple. In connection with this some fragments of tiles were found, one of which bore the letters C. C. V., together with some republican coins and various small objects. The remains of the imperial period belonged to a building which was perhaps a mansio of the station ad Vigesimum on the Via Flaminia. With this were found cornices in marble and stucco, sundry small objects, and imperial coins from Tiberius to Diocletian. The Christian epoch is represented by catacombs in the immediate vicinity and by a bronze fibula, inlaid with mother of pearl, of a hitherto unknown form. (R. Paribeni, Not. Scav. X, 1914, pp. 382-384.).

MURO LECCESE.-Hut Urns.-Finds of hut urns at Muro Leccese are briefly noted by V. M(Acchioro) in Neapolis, II, 1914, p. 119.

OSTIA.-Various Discoveries.-Excavations in various parts of the city have yielded some inscriptions and a great variety of small objects. In Not. Scav. X, 1914, p. 395, a plan of the reservoirs under the palaestra of the baths is published. Explorations at the main entrance to the theatre show that in the earlier building there was not an entrance to the orchestra at that point. In a shop in this neighborhood were found fragments of crucibles containing bright green and blue enamel, as well as bits of "satin spar," found only in parts of England and used to make inexpensive jewelry. Among the sculptures discovered is a fine head of a Roman matron, 0.27 m . in height, whose coiffure is that of the time of Trajan, while the workmanship shows that the head belongs to the days of Hadrian. Among the smaller objects is a terracotta savings-bank, ornamented with an image of Victory standing in a shrine with a cupola. (D. Vaglieri, Not. Scav. X, 1914, pp. 391, 404; 444-447; 469-472.) In B. Com. Rom. XLI, 1913, pp. 185-198 (12 figs.), recent discoveries at Ostia are reported by L. Cantarelli. Of chief importance are the fragments of statues and reliefs. Among the latter is one of Ulysses and the Sirens.
PIETRABBUNDANTE.-The Ancient Remains.-The excavations conducted at Pietrabbundante in 1840, 1857-1858 and 1870-1871, on the site of Bovianum Vetus, but never adequately published, have been examined as a preliminary to a full description of the remains with plans. The structure which has been variously called a temple, a curia, and a basilica turns out to be a temple of characteristically Italic form, over which was later built one of a different type, perhaps Hellenistic. (A. Maiuri, Not. Scav. X, 1914, p. 456.$)$

POMPEII.-Latin Inscriptions.-The continuation of the excavations in the Via Abbondanza has resulted in the uncovering of several new houses and the discovery of a considerable number of inscriptions and small objects. Among the inscriptions, which are for the most part election notices, the most interesting are the following: Popidium adulescentem, Praedicinius rog. aed.; which furnishes a gentile name new at Pompeii, and another example of adulescentem, not used as a cognomen but referring to the age of the candidate. The inscription has the added interest that a line is drawn through the last three words, indicating that Praedicinius for some reason withdrew his support of Popidius. Another inscription consists of the number 106 indicated by nine series of ten hastae, separated from one another by points, followed by X and sex. At Reg. 2, Ins. 1 an ara compitalis has been found, with remains of a painting which was restored at least five times. Above it a painted tabella biansata with names which were perhaps those of a college of ministri (cf. Not. Scav. 1911, p. 421). (M. della Corte, Not. Scav. X, 1914, pp. 411416; 450-455; 476-480.)

ROME.-Recent Discoveries.-A repost on recent finds at Rome, or in the suburbs, by G. Gatri, may be found in B. Com. Rom. XLI, 1913, pp. 256272 (pl.; 2 figs.). There is little of importance recorded,-some inscriptions, an early Christian oratory near the Porta Latina, etc.

Miscellaneous Remains.-In the area included by the Via di Porta Maggiore and the Viale Principessa Margherita numerous ancient remains have been found (Not. Scav. 1911, pp. 393 ff.; 1912, pp. 317 ff .). At the corner of the latter street and the Via Pietro Micca, exactly opposite the so-called temple of Minerva Medica, a structure of late Roman times has been found, the walls of which contained material from an earlier building, probably a tomb facing the Via Praenestina or the Via Labicana. One block bore a fragmentary inscription in letters of the second century a.d. to a freedman called Epaphroditus. He was a freedman of one of the Flavian emperors, or perhaps of Trajan, who began his career as an apparitor, but later became a Roman knight. In this vicinity were the horti Epaphroditiani, mentioned only by Frontinus, Aq. 68, named from the celebrated freedman of Nero. (G. Mancini, Not. Scav. X, 1914, p. 466 f.)

An Ancient Road.-In the XIV region, on the Via della Madonna dell'Orto, 4 m . below the level of the modern street, the remains of buildings have been found facing an ancient road, of which a part of the pavement is in situ, while other paving stones are scattered about. The road itself is 4.50 m . below the present level. (G. Mancini, Not. Scav. X, 1914, p. 467.)

A New Piece of the Anio Vetus.-During the building of a house in the Piazzale di Porta Maggiore, near the point where the Aqua Felice crosses the Aurelian wall, about 30 m . of the underground specus of the Anio vetus were unearthed. It was similar to the shorter stretch previously brought to light (Not. Scav. 1913, p. 7) and in a good state of preservation. (G. Mancini, Not. Scav. X, 1914, p. 441.)

The Porta Salaria.-The three arches of the Porta Salaria rebuilt in 1873 by Vespignani have been taken down to make way for a new street which leads out to the section of the town near the Villa Albani. (Kunstchronik, October 2,1914 , col. 16.)

SPOLETO.-Mosaics.-The excavations of the Roman house (Not. Scav. 1913 , pp. 1 ff . and 65 ff .) are summarized and some new rooms with fine mosaic pavements described by G. Sordini, Not. Scav. X, 1914, pp. 457-465.

VEII.-A Christian Catacomb.-At the junction of the Via Cassia and the Via Clodia, about a kilometre from La Storta, the enlargement of some farm buildings brought to light a Christian catacomb with numerous galleries showing traces of paintings. Coins of the imperial period, inscriptions, various small objects, and traces of a structure of a good imperial period at this point, indicate the presence of a building, the cisterns of which, with their cuniculi, were later used in the construction of the catacomb. There was, perhaps, also a burial place of the same epoch as the imperial building. (F. Stefani, Not. Scav. X, 1914, pp. 384-391.)

VELLETRI.-A Christian Catacomb.-A report on the as yet unexcavated Christian catacomb of Velletri by G. S. Graziosi appears in B. Com. Rom. XLI, 1913, pp. 225-255.

VETULONIA.-The Contents of Two Tombs.-The excavations of April and May, 1905, at Vetulonia resulted in the discovery of two circular tombs containing a rich treasure, the details of which are now given. One of these contained two cavities, of which one had been rifled in ancient times, while the other was intact. Besides bronze rings, fragments of vases and the like, the tomb contained a bronze flask embossed with ornamental figures, and a bowl of the same material decorated with human heads and figures of stags. This tomb is given the name of the "Circulo di monile d'argento" from a handsome necklace, consisting of five or more pendants of silver with smaller ornaments in silver wire, the latter having the form of four converging spirals. The "Circulo dei labete," which is of larger dimensions, takes its name from two magnificent bronze bowls, 0.65 and 0.53 m . in diameter at their openings, handsomely decorated with the heads of lions and griffins. There are fragments of a tripod, on which one of the bowls perhaps stood. The other leaned on a bronze object consisting of a strong plate of metal 0.98 by 0.35 m ., resting on a framework supported by four wheels with eight spokes each. In the centre of the plate is a cavity over which passes a strip of bronze supporting two saucer-like receptacles. The edge of the plate is decorated with small figures of ducks, and the shafts which connect the wheels with ducks' heads. Similar objects have been found in other parts of Etruria and regarded as censers for burning perfumes. These were placed in the two receptacles, while a fire was kindled in a cavity beneath them. (L. Pernier, Not. Scav. X, 1914, pp. 425-437.)

## SPAIN AND PORTUGAL

RECENT ARCHAEOLOGICAL WORK.-In Arch. Anz. 1914, cols. 316-389 (59 figs.), Pierre Paris gives in French a review of archaeological discoveries and publications in the Iberian peninsula from May, 1912, to May, 1914. In Spain such work is being pursued with great activity and intelligence by societies, scholars, and wealthy land-owners, and a vast amount of material, especially on the prehistoric and Iberian civilizations, is being accumúlated, only a small portion of which is as yet accessible in print. Foremost in interest are the rock-pictures, which exist in all parts of the country,
painted and occasionally incised on the walls and roofs of caves, and in one instance on the open face of a cliff. They are of the palaeolithic and neolithic eras, and depict chiefly animals of all sorts, with a more limited number of fish, birds, and human beings. Some are roughly dated by the extinct animals represented. Others have a marked resemblance to the Dipylon style of decoration, with the triangular forms of the human figure. Their symbolic, narrative, or religious meaning, if such they have, is not clear, but the high artistic gifts of the people who made them is unmistakable. They not only express a true sense of life and movement, and even of humor, with the simplest lines and most primitive forms, but show great skill in composition, in friezes and other fields, and in grouping and relating the action of the various figures. Female figures are rare, and appear to occur chiefly in ritual dances. One such has the large circular objects at the sides of the head which are seen on later idols and on the lady of Elche. The exploits of modern toreadors also have their prototypes here. On the island of Iviza a vast number of very primitive terra-cottas were found, which seem to show the influence of foreign models, especially Cypriote. At Numantia, the military excavations having been completed, interest centers chiefly on the remains of civil life, especially the native Iberian decorated pottery, of great originality and fantastic variety, which is now in the museum at Soria. Among other motives, we find here again the Dipylon triangular human forms and other marked geometric features. Here are also remains of crude neolithic pottery and of the bronze, iron and other weapons with which the city was so stubbornly defended against the Romans. There is no jewelry but fibulae of native manufacture and a few Phoenician beads. From other sites come very primitive bronze idols, ex-votos in the form of very rude animals, and two figures partly covered by a disk and four wings, which are supposed to represent the Celtic sun-god Belenus. To the Greek and Roman periods belong a temple of irregular construction, potsherds, inscriptions, and a wonderfully life-like mosaic of fish, from Ampurias (Emporiae); a headless draped female statue from Tarragona; and a remarkable mosaic of Dionysus on his car, which must be copied from a celebrated work, at Saragossa. The theatre at Merida (Emerita Augusta), constructed by Agrippa in 16 A.D. and altered and repaired by Trajan and Hadrian, is the best preserved in Spain, and is very fine. A Pluto and other good statues come from this building, while others are from a Mithraeum, including a seated Mercury dated in the year 155 a.d. and a standing Mithras. A fine archaistic Greek head is from Grenada. In the province of Avila and elsewhere were found native grave stelae with heads and inscriptions of the most infantile crudeness. In Portugal, archaeological work is almost at 'a standstill. A small bronze ram found near the river Brava, a small post-shaped stone with the letters ALLIANI running around one end, a few funerary inscriptions, and some stones with communicating hollows which may have been used for pressing olives, are about all there is to report.

## FRANCE

ALISE.-A New Inscription.-In R. Et. Anc. XVI, 1914, pp. 324-328 (fig.), J. Toutain publishes a fragmentary grave inscription recently found
at Alise. It probably dates from the second half of the second century A.D. Very few inscriptions have been found at Alesia.

CHAMPAGNE.-Prehistoric Cemeteries.-At Méry-Sogny (Marne) a Gallic necropolis has been discovered. Of its 270 tombs 48 were intact. The period to which it belongs is La Tène I, not neolithic. Another necropolis, that of the grottoes of Villenard, appears to be neolithic and to have served for the inhabitants of the lake village of Saint-Cloud. The department of the Marne is said to have acquired the site of the grottoes in order to care for them. (S. R., R. Arch. XXIII, 1914, p. 438.)

PARIS.-A Terra-cotta Relief from Crete.-In C. R. Acad. Insc. 1914, pp. 243-249 (fig.), M. Collignon publishes a terracotta relief from Crete (Fig. 3) acquired by the Louvre in 1914. It is a plaque 26 cm . high, red in color, with a standing female figure of the xoanon type upon it. The relief has been broken in two, but the two parts fit together. The figure is adorned with a richly embroidered garment with fringe below, and a cape which was short in front, but covered the shoulders and hung down behind. Traces of this may be seen between the hands and the body. On the head, which is too large for the body, is a tall cylindrical polos ornamented along the edge, from beneath which hang three curls on each side of the face covering the ears. She is standing stiffly with feet close together. The writer mentions seven other figures illustrating the same Cretan type. The relief dates from the seventh century в.c., and represents a goddess, probably the Cretan Artemis.


Figure 3.-Terra-cotta Relief from Crete

## BELGIUM

ARCHAEOLOGICAL FINDS IN 1913.-A brief report in French of the not very important discoveries in Belgium in 1913 is given by L. Renard-Grenson in Arch. Anz. 1914, cols. 389-392. A small Belgo-Roman cemetery at Amay (province of Liège), which was in use until the third century, contains very modest furnishings, but a jug of yellow clay with double-rimmed neck and six handles one above another, is noteworthy. Some Frankish tombs of the early Christian period, without furnishings, were found at Cessure (province of Namur) in the side of a small natural hill; at Treignes, a prehistoric camp; in Flanders, some neolithic and Belgo-Roman settlements and a cemetery; at Spiennes (Hainaut), an ancient flint mine (see below, and A.J.A. XVIII, p. 106); at Tongres, Belgo-Roman graves, scantily furnished with pottery, lamps, weapons, etc., and among them a much more ancient incineration burial, probably neolithic, also in this region several hundred Roman coins, including four large bronze coins of Trajan, M. Aurelius and Faustina the Younger, and some rare Gallic coins.

SPIENNES.-Excavations in 1913.-In B. Mus. Brux. XIII, 1914, pp. 35-37 (7 figs.), B. DE Loë reports upon the excavations of Count Louis Cavens in the ancient flint mines at Spiennes in 1913. In the rubbish which filled the galleries were many broken picks and other tools of flint. In one place
several important fragments of pottery came to light. The sites of several factories where the flint was made into implements yielded several fine specimens. In some miners' picks alone were made, in others knife blades. The objects found were placed in the Brussels museum.

## GERMANY

BERLIN.-Cuneiform Tablets from Boghazkeui.-In Exp. Times, XXV, 1914, p. 520, A. H. Sayce reports that the museum at Berlin has recently acquired some cuneiform tablets from Boghazkeui, among which are fragments containing dictionaries or lists of words in Sumerian, Assyrian, and Hittite. There is usually also a column giving the pronunciation of the ideographs by which the Sumerian words are expressed, so that their pronunciation is at last settled. Still more important is the column in which the Hittite equivalents of the Sumerian and Assyrian words are given, as these will form a starting-point for the interpretation of the Hittite cuneiform texts of which there is a large collection at Constantinople. One result is to show that the Hittite language was not Indo-European. Its relations must be sought among the languages of the Caucasus. One of its main characteristics was the extent to which the composition of words was carried.

Neolithic Pottery.-The Berlin museum has acquired over thirty fine specimens of neolithic pottery from Butzow, near Brandejnburg. In shape they resemble vessels of the so-called "Bernburger type," that is, they have a wide mouth, narrow foot, and small handles projecting from the body of the vase; but instead of being plain they are covered with incised decoration in a braided or woven pattern. The shapes prove that the Lausitz pottery of the Bronze Age developed out of the neolithic pottery of the middle and lower Elbe. (C. Schuchhardt, Ber. Kunsts. XXXV, 1913-1914, cols. 268274; 2 figs.)

A Bronze Lamp.-The Antiquarium in Berlin has recently acquired a bronze lamp in the shape of a human foot from the vicinity of Köthen. (Ber. Kunsts. XXXV, 1913-1914, col. 273.)

NIEDERBRONN.-Hypocausts.-Remains of hypocausts were found in 1913 at Niederbronn, where pipes of lead and of iron had been found before. The new substructures were published by Ch. Mitthis (Anzeiger für elsässische Altertumskunde, 1913, No. 20). He has also published photographs of the inscription found in 1904 and of the little group representing Abundantia beside a nude divinity. (S. R., R. Arch. XXIII, 1914, p. 438.)

RHEINGÖNHEIM.-Recent Excavations.-During the winter of 19131914 about two hundred burial urns were excavated in the cemetery of the Roman town at Rheingönheim. Many objects of bronze came to light, weapons, bits of armor, ornaments, and playthings as well as lamps, and vessels of terra-cotta and of glass. These are now in the museum at Speyer. Three burial places of prehistoric date were found below the Roman level. They show three different prehistoric periods, those of La Tène, Hallstatt, and the later Stone Age. On a house site a vessel of the Bronze Age was discovered. It is clear from these finds that between Rheingönheim and the Rhine there were settlements in the earliest times. In December, 1913, two rolls of Roman
silver coins, 143 in all, chiefly denarii, and one gold coin of Tiberius were found; 91 denarii and 8 quinarii are coins of Caesar, Brutus and Antony; the others include all the emperors down to Vespasian, except Caligula. The rarest are denarii of Abenobarbus, Galba, Otho and Vitellius. (E. Heuser, Die Saalburg, July 5, 1914, pp. 513-515.)

## AUSTRIA-HUNGARY

RECENT DISCOVERIES IN HUNGARY.-A brief review of the archaeological discoveries and discussions published in various Hungarian periodicals in 1912, 1913, and 1914, is given by G. von Finaly in Arch. Anz. 1914, cols. 408-411. Work on the limes Dacicus at Porolissum has corrected some errors and determined the position of new stretches of the limes and of some of the watch towers and small forts. In a Roman house north of Kolozsvar (Napoca) are remains of brick construction and of heating pipes. A large Roman house at Apulum, in which a brick stamp, LEG X\| G ET AD | and a portrait head in stone were found, appears to have had a second story, which has not before been found in Dacia. In Dunapentele (Intercisa) several hundred Roman graves were examined. Those in the eastern part of the necropolis belong to the fourth century, those in the western half to the second. The reliefs and inscriptions come from the later graves. The bronze and iron remains of a Romano-Celtic triga (three-horse chariot) and its horse trappings seem to belong to the second and third century a.D., but the graves near it are of the fourth.

VIENNA.-The Austrian Expedition to Cilicia.-It is announced that the Austrian expedition to Cilicia, under the leadership of Professor A. Wilhelm, has returned having obtained important results. (Kunstchronik, October 2, 1914, col. 12.)

Professor Wilhelm's Papers on Attic Inscriptions.-It is announced that Professor A. Wilhelm is to collect his articles on Attic inscriptions in a volume to be called Attische Studien. (Kunstchronik, October 2, 1914, col. 12.)

## RUSSIA

eXCAVATIONS AND DISCOVERIES IN 1913.-B. Pharmakowsky's report on archaeological work in Russia in 1913 (Arch. Anz. 1914, cols. 205292; 111 figs.) deals chiefly with the Greek settlements on the north coast of the Black Sea-Panticapaeum (Kertch), the peninsula of Taman, the island of Berezan, and ancient Olbia - and with the Scythian royal tumulus of Solocha in the Crimea (see A.J.A. XVIII, 1914, pp. 110 and 408 f.). From the necropolis of Panticapaeum are a small marble head from a statuette, of Alexandrian style, gold jewelry, silver coins, vases, including Attic black- and red-figured ware, and various objects of glass, iron, etc. Among those purchased here are a number of fine bronze vessels, a vase of the Roman period in the shape of a female head, and an Attic black-figured olpe of the sixth century with picture of the rape of Cassandra on which is incised an inscription in fifth century letters. At a site on the northwest coast of Berezan remains


Figure 4.-Silver Quiver from Solocha


Figure 5.-Detail of Silver Vase from Nicopol
of houses of the two periods of settlement-one in the third quarter of the sixth century, the other about 500 b.c.-were excavated. Among and under the older houses were funnel-shaped pits sunk in the rock, which contained rich stores of old Ionian pottery in great variety and kitchen refuse which testifies to the manner of living of the colonists. In the upper level were found with other sherds Attic black- and red-figured vases. A small figure of a hawk, with ring for suspension, of Egyptian paste, is noteworthy. The floors of these houses are of earth beaten very hard. At another place on the north coast were an oval house of the first period and two large houses of the second, under which was another large collection of pottery of the older period, including a large early Milesian crater ( 45 cm . high) with friezes of grazing deer in black and red paint on a light ground. Votive offerings to Achilleus Pontarches and broken vessels of glass and pottery of the second and third centuries A.D., are evidences of temporary occupation by folk from Olbia during the fishing seasons, rather than of regular settlements. The excavations at Olbia were on the site of the city itself, in the necropolis, and at the place called the "hundred graves." The necropolis contains late as well as early graves, and some in which the complete furnishings could be studied in situ. They yielded at least one piece of Naucratite and one of Samian ware, beside Corinthian, Attic Vurva style, and others down to the Roman imperial epoch, to which belong two Alexandrian vases, one in the shape of a helmeted head inscribed $A X I \triangle \wedge E Y \sum$, the other a comic negro head. In the town itself, two periods were studied, the later one being after 300 A.D. The tumulus of Solocha, of which various accounts have been given in Russian, French and English publications (A.J.A. XVIII, pp. 408 f.) contained the grave and its magnificent furnishings undisturbed (see Fig. 4). The weapons are of bronze and iron. Burials of this type were used for the Scythian kings for a long period of time with little change, but the style of the gold and silver reliefs in this tomb indicates a date in the latter half of the fourth century b.c., with resemblances to the Dexileos monument and to the Mausoleum at Halicarnassus. It is classic Hellenistic, as compared with the later, more realistic work of the silver vases found in tombs at Kul-Oba and Nicopol (Fig. 5), which are of the second, century B.c. (see A.J.A. 1914, p. 111). From the excavations in the Kuban region and the governments of Poltava, Erivan, Petrokow and Perm, a silver plate of Sassanid work found at Perm is of interest.

## GREAT BRITAIN

ARCHAEOLOGICAL WORK IN 1913-1914.-The results of excavations in Great Britain from June, 1913, to June, 1914, are reported by F. Haverfield in Arch. Anz. 1914, cols. 392-408 (13 figs.). In Scotland, a small triangular entrenchment on the river Ythan, north of Aberdeen, appears to have been a Roman temporary camp without remains of permanent occupation. It is farther north than any other known on the island. The fortification at the west end of the Wall of Antoninus Pius has been fixed at Old Kilpatrick, on the right bank of the Clyde, and two of the castella, at Mumrills and Cadder. The towers and intermediate forts that occur in Hadrian's Wall seem to be lacking in this. On a spur of the Lammermoor Hills, some
eighteen miles east of Edinburgh, Roman remains of the time of Antoninus and of Marcus Aurelius are found beneath those of later occupation. Two auxiliary camps, at Borram near Ambleside and at Slack near Huddersfield (York, W. R.) are being excavated. The latter seems to have been founded in the time of the Flavian emperors and abandoned about the middle of the second century. Among the single finds at Corbridge, Northumberland, is the top of a quadrangular altar with dedication deae pantheae. The name of the goddess to whom this uncommon epithet is given is not preserved, but the reliefs on the other three sides show a head of Mercury and two drooping heads wearing the Phrygian cap. Work done in the spring of 1914 at Ribchester cleared up the pian of the praetorium or principia, and showed it to have certain features that occur at Chester and other sites. Some thirty Roman graves on the site of the hospital at Chester, outside the west city wall, contain iron nails, perhaps from the wooden coffins, and coins and sherds of the middle of the second century. All the inscribed stones must have been taken to build the north city wall in the time of Septimius Severus, but a glass ampulla has stamped on the bottom the legend VECTIGAL PATRIMO, part of which is new. At Castle Collen in Wales it was found that the area of the fort was considerably lessened, probably in the second century, when troops were more needed in the north than in this region. At Wroxeter the podium of a small temple of Graeco-Roman type has been found, enclosed in a temenus, with a covered walk around three sides of the fore-court and a portico on the street side. At Colchester•the Morant Club has investigated the Balkerne Gate, the west gate of the Roman city, and determined at least the plan of the lower story. The structure projects in front of the line of the city wall like a bastion and has quadrant-shaped guard houses at either side-an unusual feature. At Lowbury, on a bare round hill in the middle of the Berkshire Downs, is a quadrangular area enclosed by a wall, within which are remains of huts and some coins, sherds, fibulae, etc. It was, perhaps, used as a summer camp for herdsmen in early times and later as a place of refuge from the invading barbarians.

## NORTHERN AFRICA

RECENT DISCOVERIES AND DISCUSSIONS.-A review of various books and articles on the archaeology of Northern Africa, published in 1913 and 1914, is given by A. Schulten in Arch. Anz. 1914, cols. 297-316 (9 figs.). I, General. Among the points noted are: The identification of the Libyan race with the modern Berbers; the kinship of the Libyan rock-paintings with those of Spain, and of Libyan place-names with the Iberian; the need of a comprehensive collection of the remains of the Libyan language as a basis for study; the lack of comparison of the African frontier camps and forts with those of Europe and Arabia; the rapidity with which the French, through their army, have gained control of the country, in eighty years, compared with the Romans' three hundred years; the error of most modern maps in putting the southern boundary of the Roman dominion too far south. II, Tunis. At Carthage the destruction of precious remains by private persons
goes on unchecked. A small temple dedicated to the Augustan house, genti Augustae, has been found near the Byrsa. The letters often found in inscriptions, C. C. I. K. stand for Colonia Concordia Julia Karthago, and C. I. H. for Colonia Julia Hadrumetina, both colonies being evidently founded by Julius Caesar. A series of Punic cemeteries along the east coast of Tunis, from Monastir to Cape Kapudja, have the tombs cut into the face of the soft rock of the cliffs. Libyan cromlechs surrounded by circular walls are near the Punic graves. Several other bronzes were recovered from the sunken ship at Mahdia (see A.J.A. XVIII, p. 413). Other objects to be noted are a rare terra-cotta figure of Hygieia; a complete set of bronze cultus vessels, found hidden in the vaults of the capitolium at Pupput; and a mosaic dedication dominabus, to the Dominae or Cereres. A comparison of the mosaic portrait of Virgil at Hadrumetum, with other representations of the poet, has brought a number of busts under this head, notably those known as Brutus, at Naples and in the Capitoline Museum at Rome. To the number of cantons named for divinities the pagus Veneriensis, near Sicca. Veneria, is to be added. Here was found a dedication to the seven gods, Jupiter, Saturnus, Silvanus, Caelestis, Pluto, Minerva, Venus, which gives the animals to be sacrificed to each as verbecem, agnum, caprum, gallum, (h)aedillas duas, gallinam. An inscription from Thubursicum gives a new proconsul of Africa, L. Naevius Aquilinus, for the year 261 A.D. and names the town, municipium Septimium Aurelium Severianum Antoninianum


Figure 6.-Aphrodite from Cyrene Concordium Frugiferum Liberum Thibursicensium Bure. 'This title, with others bearing the name of Septimius Severus, shows that he gave the citizenship to a group of towns in this, his native province. An important inscription of the late republican period, at Utica, is a dedication to Q . Numerius Rufus, quaestor, by the stipendiarei, those subject to tribute, of three cantons. Numerius was tribune of the people in 57 в.c.; the organization of cantons as tribute-paying rests on the agrarian law of 111 b.c. An inscription from Thysdrus shows the first epigraphic appearance of Bavarus, a town southeast of Thysdrus. III, Algeria. Prehistoric remains include kitchen middens in the region of Tebessa which
are formed of snail shells with scarcely any animal bones, and rock-paintings of extinct animals-elephants, buffaloes, etc. The fulling industry seems to have been a specialty at Timgad. An inscription in the town of Lambaesis gives the octroi or city tax on cattle, wines, etc. Another, found at Aziz bu Tellis, west of Constantine, shows that the main source of the Amsaga, fons caput Amsagae, was regarded as at this place, the ancient Idicra, the name of which is preserved in the stream Wady Dekri. A mountain between Setif and Shott.el Hodna is surrounded by a wall made of two masonry faces with loose filling between, like the walls of


Figure 7.-Head from Cyrene the German and English limites. The existence of a local native cult at Krubs, near Constantine, is indicated by a rock-cut inscription, Ifru Aug. Sacr. Libyan rock-pictures are found near by.

AOUKER.-Ruined Sites.-In C. R. Acad. Insc. 1914, pp. 253-257 is a brief report from M. Bonnel de Mézières of his explorations in the region west of Timbuctoo in 1914. East, southeast and west of Néma he found remains of villages and tombs; and on a hill at Koumbi, not far from Ghânata, two and one half days journey southwest of Néma, important remains said to belong to the village where the kings of Ghânata lived. Koumbi and Ghânata seem to be different names for the same city which was captured in 1203 by the people of Sosso. He reports the acquisition of several Arabic manuscripts.
CYRENE.-An Aphrodite Anadyomene.-During work on the fortifications between Gurenna and Ain Sciahat, Cyrene, about twenty pieces of ancient sculpture came to light, among them a very fine Aphrodite (Fig. 6) discovered December 1,1913 . It is of Greek marble and life size ( 1.70 m . high), but lacks the head and arms. The figure is nude and stands with the weight resting lightly on the right leg, beside which is a support for the drapery in the form of a dolphin holding a fish in its mouth. The goddess, who has just risen from the sea, was probably wringing the water from her hair. The statue is an original Greek work dating from Hellenistic times, but showing the traditions of fifth and fourth century art. Various copies more or less close are known. Another interesting piece (Fig. 7) is a fine head, which also exhibits affiliation with the art of the fifth century. (L. Mariani, Boll. Arte, VIII, 1914, pp. 177184; 4 pls.)

## UNITED STATES

BOSTON.-New Egyptian Rooms in the Museum of Fine Arts. - In B. Mus. F. A. XII, 1914, pp. 39-40 (3 figs.), C. S. F. describes briefly the two new Egyptian rooms recently opened in the Museum of Fine Arts. One room is devoted to objects from predynastic times down to the end of the third dynasty; the other will be known as the "Old Empire Room." It adjoins the "Mastaba Gallery" and contains, among other things, objects from the tomb of Im-thepy, and the wooden figure of Mehy. Additions have been made to the exhibits in the other rooms.

Chinese Bronzes.-In B. Mus. F. A. XII, 1914, pp. 36-38, F. S. K. calls attention to four early Chinese bronze vessels recently acquired by the Museum of Fine Arts. They date from the Chou (1122-225 b.c.) and the Ch"in (255-206 в.c.) dynasties.

NEW YORK.-Recent Acquisitions of the Metropolitan Museum.-In B. Metr. Mus. IX, 1914, pp: 233-236 (4 figs.), Miss G. M. A. R(IChter) notes the acquisition of six Greek vases by the Metropolitan Museum in 1913. The most noteworthy is a small amphora with twisted handles dating from the early part of the fifth century в.c. On one side Heracles is represented holding the tripod, and on the other is Apollo. A short band of meander is below each figure. The other vases are an Apulian lecythus with a woman and a youth swinging a little girl in a swing, a Corinthian vase, an Etruscan bucchero vase in the shape of a boar's head, and an Athenian vase in the shape of a duck, of fifth century date. Twenty-one terra-cottas were acquired, of which fourteen from one tomb in Greece represent comic actors. The others are an actor, two Tanagra figurines of the fourth century, three nude Aphrodites from Tarentum, and one fragmentary relief from Sicily, perhaps from a banquet scene, dating from the sixth century. Ibid. pp. 257-259 (3 figs.), the same writer notes the acquisition of several pieces of ancient jewelry, including two gold disks, a spiral earring of bronze plated with gold, the ends of which terminate in a granular pyramid, a chain necklace having a central medallion with the head of Dionysus, and smaller medallions with pendant chains, and other necklaces and earrings dating chiefly from the fifth and fourth centuries b.c. Among the acquisitions of ancient glass are three small bowls, one white, one green and one red with light green spots; a blue oval bowl; a dark blue jug; a glass cup with the inscription $\pi i \epsilon \zeta \dot{\eta} \sigma \eta s$; a deep bowl of purple glass with ornaments on the inside consisting of spirals, rosettes and circles in white, green and yellow; and a necklace of mosaic and crystal beads.

Egyptian Writing Materials.-In B. Metr. Mus. IX, 1914, pp. 181-182 (fig.), H. E. W. publishes a set of Egyptian writing materials of late eighteenth or early nineteenth dynasty date found in a tomb at Luxor. There is a palette, four pens, two clean sheets of papyrus in a roll, and a ball of linen thread. The palette is a little board of dark red wood 26 cm . long and 4.1 cm . wide with a slot in the centre to hold the pens. Above the slot is a thick cake of black ink. Three of the pens are new.

# EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL AND RENAISSANCE ART 

## ITALY

LOMBARD FRESCOES OF THE QUATTROCENTO.-In Rass. d'Arte, XIV, 1914, pp. 155-162, F. Malaguzzi Valeri gives an account of the frescoes, part of which have only recently come to light, which adorn the organ chapel in the Duomo at Treviglio, and had already been ascribed by the writer to Butinone. In addition to these he publishes a new series of frescoes which have recently been uncovered in the church of S. Rocco, where they decorate the ceiling. The frescoes represent the four evangelists, doctors of the church and sibyls, and betray the style of Giovanni Pietro da Cemmo.

NEW SIENESE PAINTINGS.-In Rass. d'Arte, XIV, 1914, pp. 97-104 and 163-168, F. Mason Perkins continues his publication of unknown Sienese primitives. The most important of the pieces discussed are: an Adoration of the Magi in the Abdy collection at Dorking by Benvenuto di Giovanni; a Massacre of the Innocents, by Bartolo di Fredi, in the Hendecourt collection at Paris; an Assumption by Paolo di Giovanni Fei in the Chigi-Zondadari collection at Siena; a St. Margaret in the museum at Le Mans, by Pietro Lorenzetti; a panel Faith in the Chalandon, collection at Paris, by Francesco di Giorgio; two other works by the same master in the Kann collection, Paris, The Eternal Father and Angels, and a Triumph; a Madonna by Lippo Vanni in the museum at Le Mans; a Miracle of St. Catherine in the De Blives collection at Paris, by Girolamo di Benvenuto; two pictures by Giovanni di Paolo; a Coronation of the Virgin, and a Zacharias and the Angel, both in the Lehmann collection in New York; and a signed Madonna in the possession of G. Fairfax Murray in London, by Pellegrino di Mariano. The two works by Giovanni di Paolo were first published in Art in America, 1914, pp. 280-287, by J. Breck, together with a Madonna by the same painter in the Platt collection at Englewood, N. J.

UNKNOWN PAINTINGS IN THE CASENTINO.-In L'Arte, XVII, 1914, pp. 257-264, G. de Nicola publishes some unknown works existing in various places in the Casentino: a Tuscan panel of the Madonna of the thirteenth century in the Pieve at Stia; a Madonna of the same school and period in the Badia at Poppi; a Madonna at Sant' Angelo in Cetica which the writer ascribes to the "Compagno di Pesellino," a Botticellesque Virgin and Child in the Castell at Poppi; and a Madonna in the Prepositura at Bibbiena, by Arcangelo di Cola da Camerino.

BOLOGNA.-The Testament of a Bolognese Painter.-In L'Arte, XVII, 1914, pp. 393-395, L. Frati publishes the testament of the Bolognese painter, Jacopino de' Bavosi, dated 1371. The importance of the document rests in the fact that it identifies without doubt the painter who produced part of the frescoes in the Oratory of Mezzarata, in collaboration with Simone de' Crocefissi, and signs himself Jacobus $f$.

CASTROGIOVANNI.-The Treasure of the Chiesa Madre.-In L'Arte, XVII, 1914, pp. 379-381, E. Mauceri publishes the goldsmith's work in the

Chiesa Madre of Castrogiovanni, consisting of a silver ostensorium of the middle of the sixteenth century, the work of Paolo Gili, a gold crown for a statue of of the Madonna, with enamel and chasing, of the seventeenth century, an eighteenth century gold ostensorium, and six candelabra of silver, done in 1595, four by Nibilio Gagini, and two by Pietro Rizzo.

CORDENONS.-A New Giovanni Bellini.-G. Fogolari publishes in L'Arte, XVII, 1914, pp. 304-306, a Madonna in the possession of the Galvani family, signed Johannes Bellinus. It is an unfinished work and belongs to the early period of the master.

FLORENCE.-A Drawing by Fra Giocondo in the Uffizi.-A drawing by Fra Giocondo, who succeeded Bramante as architect of St. Peter's, is published by G. Giovannoni in Boll. Arte, VII, 1914, pp. 185-195. He points out that it is a sketch of the unfinished Palazzo di S . Biagio, undertaken by Bramante at the instance of Julius II. On the basis of the drawing and the remains of the building, the writer attempts a partial restoration of the elevation, and shows the wide influence which Bramante's design exercised on the younger architects, notably Raphael.

OTRANTO.-An Eighth Century Laura.-In Neapolis, II, 1914, pp. 202209, P. Maggiolli describes a Basilian laura about a kilometre south of Otranto. The frescoes which once covered the interior of its main room or chapel have been destroyed, but from various indications it appears probable that this is one of the earliest establishments of this order in Italy, dating from the eighth century, when its members fled from the iconoclastic persecutions in the East.

PADUA.-Fragments of Donatello's Altarpiece.-A number of fragments of the pilasters belonging to Donatello's altar for the Santo at Padua, still existing in that church, are published by A. Venturi in L'Arte, XVII, 1914, pp. 307-314. He points out that these pieces make necessary a change in the reconstruction of the altar-piece, which should follow the lines of Mantegna's altar-piece for S . Zeno.

ROME.-The Frescoes of S. Saba.-In Röm. Quart. 1914, pp. 49-96, appears the first systematic publication of the results of the excavations in the old church of S. Saba on the "Little Aventine," by P. Styger. The frescoes that have been discovered date from the seventh century, the period of the foundation of the church, to the tenth, the date when it was destroyed to make way for a new and larger structure. The oldest frescoes are the figures of seven saints which lined the right wall of the nave, and date in the seventh century. After these come a cycle of the eighth century representing scenes from the lives of the Virgin and Christ. They are nearly all gone; only the Healing of the Paralytic, the Walking on the Sea, and the Transfiguration can be reconstructed. To the ninth century belongs the strip of fresco in the lower part of the apse, in which we see the lower portion of a row of saints. A part of the bust of Christ is also preserved. Enough of the older decoration of the apse is left to show that it represented the Saviour in bust with an angel on either side. The fragments from the latter part of the ninth century and those of the tenth show a style of unusual originality. Among these is the portrait of the magister operum, the monk Martinus.

## FRANCE

AVIGNON.-The Palace of the Popes.-The Palace of the Popes at Avignon is to be made into a museum consisting of three sections, one devoted to monuments of the Middle Ages and the Renaissance, another to worhs of the seventeenth and eighteenth centuries, and another for modern works of art. The first will have placed in it by way of commencement casts of sculptures connected with the history of Avignon and copies of frescoes of the period 1200-1500; the nucleus of the second section will be formed by the eighteenth century fireplace which was formerly in the Chartreuse of Villeneuve-lèsAvignon. The Abbé Requin has been named curator of the new museum. (Chron. Arts, 1914, p. 186.)

PARIS.-Acquisitions of the Louvre.-The Louvre has recently acquired: the reliquary of the True Cross of the church of Jaucourt (Aube), a Byzantine work of the twelfth century, on a base added in the fourteenth century; an Annunciation to the Shepherds, and two figures of prophets, in stone, fiom Parthenay, dating from the twelfth century; and Bernini's sketch in terracotta for his S. Bibiana, the well-known statue in the church of that name in Rome (Chron. Arts, 1914, pp. 201-202.)

## SWITZERLAND

BERN.-An Illustrated Parsifal Manuscript of the Fifteenth Century.-In the Bern library is a manuscript of the Parsifal legend, originally belonging to a certain Jörg Freiburger of Bern, and bearing the owner's date of 1467. The manuscript was written by Johann Stemheim of Konstanz. It is illustrated with twenty-eight drawings, the style of which, in default of accurate parallels, indicates a connection with the school of Konstanz. (C. Benziger, Mh.f. Kunstw. VIII, 1914, pp. 214-218.)

## GERMANY

BERLIN.-The "Ausstellung Von Werken Alter Kunst."-A description of the most interesting pictures in this recent loan exhibition of the treasures of German private collections makes an unusually important article in the Z. Bild. K. XXV, 1914, pp. 225-235, by E. Plietzsch. The paintings of which reproductions are given are: a Baptism by the "Master of the St. Bartholomew," in the von Kaufmann collection, Berlin; a Madonna by Gerard David in the possession of Dr. W. von Pannwitz, Grunewald; a Madonna in the collection of C. von Hollitscher, Berlin, by Geertgen tot Sint Jans; a Landscape with Cows belonging to O. Huldschinsky, Berlin; a Madonna and Saints by Rubens, in the Koppel collection, Berlin; a Card-party by Ter Borch, belonging to M. Kappel, Berlin; a portrait of a man by Van Dyck (Koppel collection); a male portrait by Rembrandt (von Pannwitz collection); a Peasant Woman in a Court-yard, by Pieter de Hooch (von Hollitscher collection); A Vision of St Peter by Jan Lys, in the possession of Dr. A. Frey, Berlin; a Woman Washing Clothes, by Esaias Boursse (Schoeller collection,

Berlin); a scene from Le Malade Imaginaire by Cornelis Troost, in the possession of the Museumsverein, Berlin; a predella by Lauro Padovano (von Kaufmann collection); and a View over the Venetian Lagoons by Fr. Guardi in the possession of Dr. James Simon, Berlin.

A "Death of the Virgin" by Giotto.-F. Mason Perkins contributes to Rass. d'Arte, XIV, 1914, pp. 193-200, an account of the vicissitudes of the


Figure 8-Death of the Virgin by Giotto
panel which was recently acquired by the Berlin museum from the Douglas collection, representing the "Death of the Virgin," (Fig. 8). There seems to be no doubt that the picture is the one mentioned by Ghiberti and Vasari as once existing in the Ognissanti, and a genuine work of Giotto.

LÜTSCHENA.-Drawings by Matthias Grünewald.-In the gallery of Freiherr Speck von Sternburg at Lütschenà, near Leipzig, F. Becker has discovered two drawings by the hand of Matthias Grünewald. The one is a portrait-study, possibly of the painter's wife, a half-figure of a seated woman in the forties. The other is also a half-figure, and study probably for a Magdalen in a Crucifixion group. (Z. Bild. K. XXV, 1914, p. 275).

## RUSSIA

HELSINGFORS.-An Altarpiece by Meister Francke.-A curious altarpiece at Helsingfors (Finland) is published in Z. Bild. K. XXVI, 1914, pp. 17-23, by A. Goldschmidt. It is a carved altar with scenes representing the Death of the Virgin, the Nativity, the Circumcision, the Betrayal, and an unusual panel representing the donor kneeling at the fect of the Virgin, while the devil behind him brandishes a contract for his soul. The outside of the wings is painted with the legend of St. Barbara. Stylistic peculiarities class both the paintings and the carvings among the products of the atelier of Meister Francke of Hamburg, of whom this is the first sculptured work to be noted. The altar was once in the church of Nykyrcko, but has been removed to the museum at Helsingfors.

## GREAT BRITAIN

NEW BRONZINOS.-Two works by Bronzino have lately been recognized. In Burl. Mag. XXVI, 1914, pp. 50-51, T. Borenius attributes to him an idealized portrait of Ezzelino da Romano, the notorious condottiere of the thirteenth century. It doubtless formed one of a series of "Illustrious Men." The painting was at the time of writing in the possession of Mr. Rothschild at the Sackville Gallery in London. The other painting which still retains a portion of Bronzino's signature, is a Holy Family in the collection of Sir George Faudel Phillips, of Balls Park, Heltford. It is described by Sir Claude Phillips in Burl. Mag. XXVI, 1914, pp. 3-4. Both pictures are reproduced in the articles cited.

LONDON.-A Portrait of Constantine.-A head from Cos in the British Museum is thought to be a portrait of Constantine the Great by A. E. Conway in Burl. Mag. XXV, 1914, pp. 346-349. The identification is made by comparison with the head of the colossal statue at St. John Lateran, and the other colossal head in the Conservatori Palace at Rome. The head, if really that of Constantine, is easily the best portrait of him in existence.

A Mediaeval Panel.-A painting on canvas-covered wood is reproduced in Burl. Mag. XXVI, 1914, pp. 93-94, which is in the collection of Mr. Grosvenor Thomas. It is a Crucifixion, having many points in common with the Resurrection panel at Norwich, and must date toward 1400. A consideration against an attribution to an English artist is that old English painting is notdone on canvas but on primed oak (R. E. and A. V.).

A Wooden Ambo in the Victoria and Albert Museum.-Four wooden columns belonging to an ambo are published in Burl. Mag. XXV, 1914, pp. 291-294, by J. Tavenor Perry. They were bought in Naples and appear to be made of Appenine chestnut. The decoration shows Saracenic influence, but certain details point also to a Lombard strain, while others still are reminiscent of the Byzantine. The whole is in fact a typical product of the eclectic art of South Italy. The capitals contain figure-subjects-among them Gethsemane, the Betrayal, the Flagellation (?)—and symbolic groups like peacochs, and seraphs flanking a sacred tree. The writer suggests that the ambo was made ca. 1075 for the Capella Palatina in Salerno. The lily carved on the face of one of the shafts may well refer to a restoration by Charles of Anjou in 1266.

WINDSOR.-A Lost Early Christian Encolpium.-E. B. Smith publishes in Byz. Zeit. XXIII, 1914, pp. 217-225, a drawing preserved in the Dal Pozzo collection at Windsor, which reproduces the reliefs which adorned the sides of a gold encolpium, evidently a Syro-Palestinian work of about 600. The reliefs represented on one side the ascension, on the other a Flight into Egypt which had the peculiarity of introducing a Tyche which comes forward to greet the Holy Family.

## UNITED STATES

TWO SIENESE CASSONE PANELS.-F. J. Mather, Jr., publishes in Art in America, II, 1914, pp. 397-403, two cassone panels of the fifteenth century. The first is in the collection of Mr. Otto Kahn, New York, and
represents the story of Coriolanus; it is to be ascribed to the school of Vecchietta. The other was lent to the Boston Museum of Fine Arts by Mrs. Edmund Wheelwright. The central panel, which is flanked by two smaller ones depicting figures holding coats of arms, is decorated with the Judgment of Paris and Oenone's Farewell. It is the work of Francesco di Giorgio.
NEW YORK.-A Madonna by Giovanni Bellini.-W. Rankin publishes in Art in America, II, 1914, pp. 317-321, a Madonna which he ascribes to Giovanni Bellini and dates shortly before 1481. It is in the possession of Mr. Grenville L. Winthrop.
A Panel by Francesco del Cossa.-The Lehmann collection in New York possesses a tondo panel of the Crucifixion, representing the Saviour on the Cross, the Virgin and St. John, which is to be ascribed to the years $1470-$ 1475, and attributed to Francesco del Cossa. The pieture is published by J. Breck in Art in America, II, 1914, pp. 314-317.

An Acquisition of the Metropolitan Museum.-The Metropolitan Museum has recently acquired two alabaster reliefs of an altar-piece by Vallfogona, Spanish, late fifteenth century. (B. Melr. Mus. 1914, p. 201.)
PRINCETON.-A Late Gothic Statue.-P. VITRy publishes in Art in America, II, 1914, pp. 276-280, a statue in the museum at Pinceton University which he dates about 1515-1525, and assigns to the school of Champagne. Its nearest parallel is the St. Martha in the church of the Magdalen at Troyes, and it may have formed part of an Entombment group.

## AMERICAN ARCHAEOLOGY

## GENERAL AND MISCELLANEOUS

COLORADO.-Kivas in Small Ruins.-In Amer. Anth. N. S. XVI, pp. $33-58$ ( 9 pls.), T. M. Prudden describes excavations in the "unit-type" ruins of southwestern Colorado. It was ascertained that the circular depressions, regularly occurring to the south of the houses and heretofore commonly called reservoirs, were, as the author had suspected, kivas filled with rubbish. These kivas were found to be the same in structure and in masonry as the corresponding rooms in the large ruins of the San Juan region.
NEW MEXICO.-Ruins of the Lower Mimbres Valley.-In Smith. Miscell. Colls. Vol. 63, No. 10 ( 53 pp.; 8 pls.; 32 figs.), J. W. Fewkes announces the discovery of a number of prehistoric ruins in a region previously supposed to contain few traces of aboriginal habitations. The village remains consist of low mounds marked only by low, broken walls, some of stone, some of a less permanent slab and adobe construction. No ground-plans were obtained. Burials were found beneath the floors of the rooms, the skeletons usually embedded in clay and accompanied by one or more perforated (ceremonially "killed") pottery food-bowls, one of which was almost invariably inverted over the skull. These bowls are remarkable for the great number of life figures painted upon them: Human beings, mammals, reptiles, birds and fish. While these figures are found in a profusion not seen elsewhere in the Southwest, the geometrical designs accompanying them are surely "Southwestern" in type. The author concludes that the ruins belong to a culture antedating that of the terraced pueblos of northern New Mexico; allied, perhaps, to
the ancestors of the latter. The art he considers to be akin to that of the Casas Grandes in Chihuahua, Mexico, and the group may possibly be transitional between the Casas Grandes and the distinctly puebloan culture of the North.

OHIO.-An Archaeological Atlas.-W. C. Mills has published under the auspices of the Ohio State Archaeological and Historical Society (Columbus, 1914) a complete Atlas of the state, showing the location of 5,396 antiquities of the following classes: Burial mounds, ordinary burials, cemeteries, stone graves, earth enclosures, effigy mounds, petroglyphs, flint quarries, caches, rock shelters. Many of these are recorded for the first time. The work consists of two general, eighty-eight county, maps, each accompanied by descriptive text and tabulations of sites by townships.

BRITISH HONDURAS.-The Excavation of Mounds.-In Ann. Arch. Anth. VII, 1914, pp. 28-42 (3 pls.; fig.), T. W. F. Gann reports upon the excavation of thirteen mounds in British Honduras and Yucatan in 1911 and 1912. In most of them, the finds were insignificant; but in Mound 9 , situated at the upper part of Chetumal Bay, much rough pottery was discovered, and three broken incense burners, each with a figure upon it in high relief probably representing the god Cuculan. One of the figures was 20 in . and another 26 in . in height. A rough pottery bowl, of which fragments only remain, has an incised hieroglyphic inscription. All these objects were close to the surface. In Mound 10 near by were two vases in the form of a human leg and foot. The foot wears a sandal and about the thigh is a garter ornamented with pendants. Similar vases were found at Adventura and at Douglas. In Mound 11 near Progresso a small circular vase $1 \frac{1}{2} \mathrm{in}$. in diameter was found. It was ornamented on the outside with a head wearing a peaked headdress and two arms with clasped hands holding a ball. Inside was a small earthenware bead, a very small obsidian knife, and the terminal phalanx of a small finger. It is known that at the death of a favorite child a Maya mother sometimes cut off the end of a finger with an obsidian knife and buried both knife and finger-tip in the grave. From Mound 13, near Douglas came another human figure 14 in . high. At Yalloch, across the boundary in Guatemala, an underground chamber was discovered which contained two complete cylindrical cases, and an ovoid vase besides many finely painted fragments. The ovoid vase is yellow with ornamentation in red, black, and reddish yellow in three zones. At the top are ten hieroglyphs; in the middle zone is the crouching figure of a god, perhaps Cuculan; and below are square vases, each decorated with the "Ahau" sign. One of the cylindrical vases is 11 in. high and has at the top a single row of hieroglyphics, then below this two representations of the elephant god (who, the writer believes, was derived from the tapir), and in the lowest zone alternate red and black lines. The other cylindrical vase is $7 \frac{1}{2} \mathrm{in}$. high with a row of hieroglyphs at the top, a mythological creature covered with feathers and with very long legs in the middle zone, and a broad red stripe below. A pottery cylinder, $10 \frac{1}{2}$ in. high without bottom has a light yellow background and decorations in light and dark red and dark yellow. It has at the top a row of hieroglyphs, then in the middle an intricate design containing human and mythological figures, hieroglyphics, etc., and at the bottom a much effaced row of hieroglyphs.

HONDURAS.-Statuette from Copan.-In Man, 1915, I (pl.), L. C. G. Clarke figures a statuette in hard green stone said to have come from Copan.

The figure, seated cross-legged with the hands on the knees, represents a bearded man. The height is $12 \frac{3}{4} \mathrm{in}$.

PERU.-Ancient Remains at Espiritu Pampa.-Ancient remains at Espiritu Pampa are described by H. Bingham in Amer. Anthr. N. S. XVI, pp. 185-199. The ruins consist of a group of primitive round houses and a group of larger buildings situated on an artificial terrace. The masonry of the large houses is poor, but, with the exception of a single house with a semicircular end, the structures are typically Inca. Minor antiquities found in and about these groups were: Potsherds and whole vessels of Inca style, a bit of hammered silver, and bronze axes. A dozen or so Spanish roofing tiles and the end of one of the houses are believed to show European influence. The author considers this site to belong to the early historic period and that it may possibly have been the residence of the Inca Titu Cusi Yupanqui in 1565. The site is situated deeper in the Amazon jungles than any other Inca ruin so far recorded.

TRINIDAD.-Prehistori乞 Objects from a Shell-heap at Erin Bay.-J. W. Fewkes (Amer. Anthr. N. S. XVI, pp. 200-201; 6 pls.) describes excavations in the Tcip-Tcip shell-heap. The shells were found in layers alternating with ashes and soil; among them were numerous fragments of pottery bearing grotesquely modelled heads of animals, a few whole vessels, pottery stamps, a notched axe and a jadeite pendant. The author considers the pottery to be more closely allied to that of the adjacent South American mainland than to that of the other Antilles. The people were probably Arawakan agriculturalists who had developed a well-marked local culture that was practically submerged, in prehistoric times, by Carib raids.

## ABBREVIATIONS

Abh.: Abhandlungen. Allg. Ztg.: Münchener Allgemeine Zeitung. Alt. Or.: Der alte Orient. Am. Arthr.: American Anthropologist. Am. Archit.: American Architect. A.J.A.: American Journal of Archaeology. A.J. Num.: American Journal of Numismatics. A. J. Sem. Lang.: American Journal of Semitic Languages and Literature. Ami d. Mon.: Ami des Monuments. Ant. Denk.: Antike Denkmäler. Ann. Arch. Anth.: Annals of Archaeology and Anthropology. Ann. Scuol It. Ath.: Annuario della r. Scuola Archeologica di Atene e delle Missioni Italiane in Oriente. Arch. Ael.: Archaeologia Aeliana. Arch. Anz.: Archäologischer Anzeiger. Arch. Rec.: Architectural Record. Arch. Rel.: Archiv für Religionswissenschaft. Arch. Miss.: Archives de Missions Scientifiques et Littéraires. Arch. Stor. Art.: Archivio Storico dell' Arte. Athen.: Athenaeum (of London). Ath. Mitt.: Mitteilungen d. k. d. Archaeol. Instituts, Athen. Abt.

Beitr. Assyr.: Beiträge zur Assyriologie. Ber. Kunsts.: Amtliche Berichte aus den Königlichen Kunstsammlungen. Berl. Akad.: Preussische Akademie der Wissenschaften zu Berlin. Berl. Phil. W.: Berliner Philologische Wochenschrift. Bibl. Stud.: Biblische Studien. Bibl. World: The Biblical World. B. Ac. Hist.: Boletin de la real Academia de la Historia. Boll. Arte.: Bollettino d' Arte. Boll. Num.: Bollettino Italiano di Numismatica. Bonn. Jb.: Bonner Jahrbücher: Jahrbücher des Vereins von Altertumsfreunden im Rheinlande. B.S.A.: Annual of the British School at Athens. B.S.R.: Papers of the British School at Rome. B. Arch. M.: Bulletin Archéol. du Ministère. B. Arch. C. T.: Bulletin Archéologique du Comité des Travaux hist. et scient. B.C.H.: Bulletin de Correspondance Hellénique. B. Inst. Eg.: Bulletin de l'Institut Egyptien (Cairo). B. Metr. Mus.: Bulletin of the Metropolitan Museum of Art, New York. B. Mus. Brux.: Bulletin des Musées Royaux des arts décoratifs et industriels à Bruxelles. B. Mus. F. A.: Museum of Fine Arts Bulletin, Boston. B. Num.: Bulletin de Numismatique. B. Soc. Ant. Fr.: Bulletin de la Société des Antiquaires de France. B. Soc. Anth.: Bulletin de la Société d'Anthropologie de Paris. B. Mon.: Bulletin Monumental. B. Com. Rom.: Bullettino d. Commissione Archeologica Comunale di Roma. B. Arch. Crist.: Bullettino di Archeologia Cristiana. B. Pal. It.: Bullettino di Paletnologia Italiana. Burl. Gaz.: Burlington Gazette. Burl. Mag.: Burlington Magazine. Byz. Z.: Byzantinische Zeitschrift.

Chron. Arts: Chronique des Arts. Cl. Phil.: Classical Philology. Cl. R.: Classical Review. C. R. Acad. Insc.: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres. C.I.A.: Corpus Inscriptionum Atticarum. C.I.G.: Corpus Inscriptionum Graecarum. C.I.L.: Corpus Inscriptionum Latinarum. C.I.S.: Corpus Inscriptionum Semiticarum.
 Eph. Sem. Ep.: Ephemeris für Semitische Epigraphik. Exp. Times: The Expository Times.

Fornvännen: Fornvännen: meddelanden från K. Vitterhets Historie och Antikvitets Akademien.

Gaz. B.-A.: Gazette des Beaux-Arts. G.D.I.: Sammlung der griechischen Dialekt-Inschriften.
I.G.: Inscriptiones Graecae (for contents and numbering of volumes, ef. A.J.A. IX, 1905, pp. 96-97). I.G.A.: Inscriptiones Graecae Antiquissimae, ed. Roehl. I. G. Arg.: Inscriptiones Graecae Argolidis. I. G. Ins.: Inscriptiones Graecarum Insularum. I. G. Sept.: Inscriptiones Graeciae Septentrionalis. I. G. Sic. It.: Inscriptiones Graecae Siciliae et Italiae.

Jb. Arch. I.: Jahrbuch d. k. d. Archäol. Instituts. Jb. Kl. Alt.: Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Litteratur und für Pädagogik. Jb. Kunsth. Samm.: Jahrbuch der Kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses. Jb. Phil. Päd.: Neue Jahrbücher für Philologie und Pädagogik (Fleckeisen's Jahrbücher). Jb. Preuss. Kunsts.: Jahrbuch d. k. Preuss. Kunstsammlungen. Jh. Oest. Arch. I.: Jahreshefte des oesterreichischen Archäologischen Instituts. J. Asiat.: Journal Asiatique. J.A.O.S.: Journal of American Oriental Society. J.B. Archaeol.: Journal of the British Archaeological Association. J. B. Archit.: Journal of the Royal Institute of British Architects. J. Bibl. Lit.: Journal of Biblical Literature. J.H.S.: Journal of Hellenic Studies. J.Int. Arch. Num.:
 ologie numismatique (Athens).

Kb. Gesammtver.: Korrespondenzblatt des Gesammtvereins der deutschen Geschichts- und Altertumsvereine. Klio: Klio: Beiträge zur alten Geschichte. Kunstchr.: Kunstchronik.

Mb. Num. Ges. Wien: Monatsblatt der Numismatischen Gesellschaft in Wien. Mh.f. Kunstw.: Monatshefte für Kunstwissenschaft. Mél. Arch. Hist. Mélanges d'Archéologie et d'Histoire (of French School in Rome). Mél. Fac. Or.: Mélanges de la Faculté Orientale, Beirut. M. Acc. Modena: Memorie della Regia Accademia di scienze, lettere ed arti in Modena. M. Inst. Gen.: Mémoires de l'Institut Genevois. M. Soc. Ant. Fr.: Mémoires de la Société des Antiquaires de France. Mitt. Anth. Ges.: Mitteilungen der anthropologischen Gesellschaft in Wien. Mitt. C.-Comm.: Mitteilungen der königlichkaiserlichen Central-Commission für Erforschung und Erhaltung der Kunstund historischen Denkmale. Mitt. Or. Ges.: Mitteilungen der deutschen Orient-Gesellschaft. Mitt. Pal. V.: Mitteilungen und Nachrichten des deutschen Pälestina Vereins. Mitt. Nassau: Mitteilungen des Vereins für nassauische Altertumskunde und Geschichtsforschung. Mitt. Vorderas. Ges.: Mitteilungen der vorderasiatischen Gesellschaft. Mon. Ant.: Monumenti Antichi (of Accad. d. Lincei). Mon. Piot: Monuments et Mémoires pub. par l'Acad. des Inscriptions, etc. (Fondation Piot). Mün. Akad.: Königlich Bayerische Akademie der Wissenschaften, München. Mün. Jb. Bild. K.: Münchner Jahrbuch der bildenden Kunst.
N. D. Alt.: Nachrichten über deutsche Altertumskunde. Nomisma: Nomisma: Untersuchungen auf dem Gebiete der antiken Münzkunde. Not. Scav.: Notizie degli Scavi di Antichità. Num. Chron.: Numismatic Chronicle. Num. Z.: Numismatische Zeitschrift. N. Arch. Ven.: Nuovo Archivio Veneto. N. Bull. Arch. Crist.: Nuovo Bullettino di Archeologia cristiana.

Or. Lit.: Orientalistische Literaturzeitung. Or. Lux: Ex Oriente Lux.
Pal. Ex. Fund: Quarterly Statement of the Palestine Exploration Fund.
 Proceedings of the Society of the Antiquaries.

Rass. d' Arte: Rassegna d'Arte. Rec. Past: Records of the Past. R. Tr. $\hat{E} g$. Assyr.: Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes. Reliq.: Reliquary and Illustrated Archaeolngist. Rend. Acc. Lincei: Rendiconti d. r. Accademia dei Lincei. Rep. f. K.: Repertorium für Kunstwissenschaft. R. Assoc. Barc.: Revista de la Associacion artistico-arqueologico Barcelonesa. R. Arch. Bibl. Mus.: Revista di Archivos Bibliotecas, y Museos. R. Arch.: Revue Archéologique. R. Art Anc. Mod.: Revue de l'Art ancien et moderne. R. Art Chrét.: Revue de l'Art Chrétien. R. Belge Num.: Revue Belge de Numismatique. R. Bibl.: Revue Biblique Internationale. R.Ep.: Revue Épigraphique. R.Et Anc.: Revue des Etudes Anciennes. R. Et. Gr.: Revue des Etudes Grecques. R. Et. J.: Revue des Etudes Juives. R. Hist. Rel.: Revue de l'Histoire des Religions. R. Num.: Revue Numismatique. R. Or. Lat.: Revue de l'Orient Latin. R. Sém.: Revue Sémitique. R. Suisse Num.: Revue Suisse de Numismatique. Rh. Mus.: Rheinisches Museum für Philologie, Neue Folge. R. Abruzz.: Rivista Abruzzesa di Scienze, Lettere ed Arte. R. Ital. Num.: Rivista Italiana Numismatica. R. Stor. Ant.: Rivista di Storia Antica. R. Stor. Calabr.: Rivista Storica Calabrese. R. Stor. Ital.: Rivista Storica Italiana. Röm.-Germ. Forsch.: Bericht über die Fortschritte der Römisch-Germanischen Forschung. Röm.-Germ. Kb.: Römisch-Germanisches Korrespondenzblatt. Röm. Mitt.: Mitteilungen d. k. d. Archäol. Instituts, Röm. Abt. Röm. Quart.: Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte.

Sächs. Ges.: Sächsische Gesellschaft (Leipsic). Sitzb.: Sitzungsberichte: S. Bibl. Arch.: Society of Biblical Archaeology, Proceedings.

## Voss. Ztg.: Vossische Zeitung.

W. kl. Phil.: Wochenschrift für klassische Philologie.
Z. D. Pal. V.: Zeitschrift des Deutschen Palästina Vereins. Z. Aeg. Sp. Alt.: Zeitschrift für Aegyptische Sprache und Altertumskunde. Z. Altest. Wiss.: Zeitschrift für alttestamentliche Wissenschaft. Z. Assyr.: Zeitschrift für Assyriologie. Z. Bild. K.: Zeitschrift für Bildende Kunst. Z. Ethn.: Zeitschrift für Ethnologie. Z. Morgenl.: Wiener Zeitschrift für die Kunde des Morgenlands. Z. Morgenl. Ges.: Zeitschrift der deutschen Morgenländschen Gesellschaft. Z. Mün. Alt.: Zeitschrift des Münchener Alterthumsvereins. Z. Num.: Zeitschrift für Numismatik.

## Art and Archaeology

At the Washington Meeting, December 31, 1912, the Council of the Archaeological Institute authorized the officers to transform the BULLETIN into a non-technical illustrated monthly magazine as rapidly as was consistent with financial stability and the maintenance of high editorial and artistic standards. The name adopted by the Council at Montreal, January 3, 1914, is ART AND ARCHAEOLOGY.

The first (JULY) number appeared in June and the succeeding numbers followed every other month during 1914. Owing to the uncertain financial conditions incident to the European War, the Council at the Annual Meeting in Philadelphia, December 29, 1914, voted that ART AND ARCHAEOLOGY continue to be published every other month until the Executive Committee should otherwise authorize. As soon as circumstances justify, the Executive Committee will be asked to authorize its appearance as a monthly magazine, in accordance with the original resolution of the Council.

The purpose of ART AND ARCHAEOLOGY is to give people in an interesting and attractive way the information they wish to have in the wide realm embraced by its name. This information is imparted by interesting reading matter prepared by men and women who are masters in their several fields and by beautiful pictures produced by approved modern processes. Human interest, timeliness, and literary merit are the tests applied-in the selection of articles, and artistic quality and appropriateness are the standards in the selection of illustrations.

The contributed articles are of varied interest, embracing the fields of Oriental, Greek, Roman, Christian Renaissance, and American archaeology and art. Full page illustrations are made an attractive feature. Notes from the various fields and brief paragraphs concerning archaeological discoveries, new books, and other items of current interest are worthy of mention.

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Subscription per annum, $\$ 2.00$. Single numbers, 35 cents.
Contributions and editorial correspondence should be addressed to ART AND ARCHAEOLOGY, The Octagon, Washington, D. C.

Subscriptions and advertisements will be received by The Waverly Press, Baltimore, Md.; and by the General Secretary of the Archaeological Institute, The Octagon, 1741, New York Avenue, Washington, D. C.

Issued every other month.

# Archaeological 

$\mathfrak{Z n s t i t u t e}$
of $\mathfrak{A m e r i c a}$

## A BRONZE STATUE IN THE METROPOLITAN MUSEUM OF ART

## [Plates I-VI]

Every new appearance of an ancient statue of first-rate importance is a matter for general congratulation. Not only is our stock of works of art increased thereby, but often valuable data are supplied for our understanding of the history of Greek and Roman sculpture. So much of this history has had to be written with little external evidence to help us, and with only the statues themselves to tell their own story, that there must necessarily be a great many gaps in our knowledge.

The Metropolitan Museum of Art has recently acquired a bronze statue of a boy which ranks high as a work of art, and historically is of great interest, as it presents a new aspect of the art of its period. The statue was discussed by Dr. Edward Robinson at the last general meeting of the Archaeological Institute at Haverford. It has since been briefly published in the Museum Bulletin of January 1915, and in the Catalogue of Greek, Roman, and Etruscan Bronzes in The Metropolitan Museum of Art, just issued; but it is here republished at greater length, so that it may become more widely known in archaeological circles.

The statue represents a boy standing in a graceful, easy pose, his head slightly turned to the left and his weight resting on the left.leg. He wears a himation, or Greek mantle, which covers his left upper arm, is drawn across the back in a downward slanting line, and is then brought round to cover the lower part of the figure in front, the upper portion being thrown over the left forearm. The preservation is excellent, the only missing parts being both feet, the fingers of the left hand, and the object or objects held. The eyeballs were inserted separately. Only one is now preserved and has not been placed in the socket; the white is of ivory, the iris of a blue-gray stone, the pupil is missing;
fragments of the lashes of one eye, of bronze, are also preserved, but have likewise not been added. The right arm was broken off and re-attached; there is also a break across the middle of the body above the drapery, but both of these fractures were clean and have been repaired without any restoration. A small rectangular piece inserted in the drapery on the left side as a repair for defective casting has fallen out. A beautiful, smooth, blue-green patina now covers the surface; there are incrustations in places.

Both in its conception and its execution the artist of this statue has shown his high artistic ability. The pose, with the little tilt of the head and the slight curve of the figure, is wonderfully graceful; and the boyish face has a sensitiveness and charm rarely equalled in ancient sculpture. Very effective also is the contrast presented by the nude torso and the varied folds of the drapery covering the rest of the figure. The nude portions of the body, especially the chest and the shoulders, are beautifully modelled, with fine appreciation of the delicate curves of a young boy. The drapery is rendered with unusual skill; it is rich and varied, and still essentially simple in its lines, and the feeling for the figure beneath it is successfully conveyed.

It is noteworthy that on the himation in front are indicated a number of stripes, both horizontal and crossing each other. Each stripe consists of two parallel lines about half an inch apart. Identical stripes occur on the draperies of the Pergamene frieze ${ }^{1}$ and other sculptures of the fourth century and later periods. ${ }^{2}$ They have generally been interpreted as creases formed by the folding of the garments; but this interpretation is not satisfactory, as such creases would hardly be represented by double lines, and would not occur in the irregular way in which we find them on some of the statues. It is a more plausible theory that the artist meant to represent a garment with a striped pattern. ${ }^{3}$

The two lower corners of the himation which appear on the left side are each decorated with a bow-knot, and a border runs

[^36]round the bottom, both front and back. On the left side joining the two ends of the himation, and also a little higher up, are two small supports, such as are generally found on marble statues.

It is difficult to interpret the action of the two hands. The right is held half open; the left, with the palm of the hand upward and the fingers extended. There is a roughness on the thumb of the right hand and a corresponding roughness on the base of the thumb of the left hand, which may be remains of attachments; but what the object or objects held were, it is now impossible to say.

To what period does this statue belong? The whole conception and style of the figure, as well as the modelling, with its soft modulations from plane to plane, point to Greek rather than Roman workmanship. Moreover, the fact that the boy wears the Greek himation instead of the Roman toga also shows the close connection of the statue with Greek sculpture. The thorough understanding of the undeveloped body of a boy shown by the sculptor in every detail of his work, most strikingly perhaps in the thin arms and the soft, childlike contours of the face, speaks for the later Greek period. The treatment of the hair in separate, short curls laid closely on the scalp is reminiscent of the style of Lysippus and is not unusual in late Greek sculpture. ${ }^{1}$ But the determining factor in dating our statue is the type of the boy's head. This is clearly a portrait and it has the characteristic traits of the Julio-Claudian family. He has the broad forehead, the flat skull, the protruding ears, and the general type of features continually found in members of that family.

The statue must therefore be dated not far from the beginning of the Christian era. For the history of Greek sculpture this is significant. It shows us that at this comparatively late time there were Greek artists who were thoroughly imbued with the idealizing tendencies of earlier Greek sculpture and were still in no sense copyists. They looked to the earlier periods for inspiration rather than for models. Their work showed neither the stereotyped, dry elegance of the Augustan period nor the extravagant realism of some of the Hellenistic schools. In short, they kept alive the great traditions of earlier

[^37]Greek sculpture without letting their own originality be impaired thereby. We have not yet sufficient data to determine the home of the sculptor of our statue. It is more probable, however, that we must look for it in the eastern than in the western part of the Roman Empire. Greek sculptors would be more likely to adhere closely to earlier Greek traditions in their own lands, that is, in Greece and in Asia Minor, than in Italy, where they lived among foreign peoples and where they would necessarily be affected by outside influences.

A study of this statue would be incomplete without a consideration of its possible identification. We have already pointed out the strong likeness which the head bears to members of the Julio-Claudian family. It may therefore be assumed, with a fair degree of probability, that our boy was an imperial prince of that house. Our choice of such princes is of course fairly large, even though we need only confine ourselves to the earlier members of that family, since our statue could not be dated later than the very beginning of the first century a.d. The attached chart (see page 125) will show clearly who are the persons who come into consideration. Of these we may rule out those whose physiognomy is familiar from identified portraits and does not correspond with that of our statue. Such are Augustus, Tiberius, Germanicus, and Agrippa Postumus. Augustus, even in his youthful portraits, has a much colder, more serious countenance than our boy, and the arrangement of the hair over the brow, which is identical in almost all heads of Augustus, is different in our statue. Tiberius's mouth is thin-lipped and recedes considerably between nose and chin, while the mouth of our boy has full lips. Germanicus also clearly shows a thinlipped mouth in his portraits on coins. Agrippa Postumus bears no resemblance at all to our statue.

There remain for consideration the two Drusi, M. Marcellus, Claudius, and Caius and Lucius Caesar. Of Marcellus we have no coins; the coins of Nero Drusus, Drusus the Younger, and of Caius and Lucius Caesar are not distinctive enough to warrant a positive identification. But an important factor which must strongly influence our choice is the youthfulness of our statue. The boy can hardly be more than fourteen or fifteen years old. Who then of these six princes would be likely to be commemorated by a statue at so early an age? And by a statue erected probably not in Rome, which might reflect some local popular-
C. OCTAVIUS
m. Atia, niece of C. Julius Caesar
Octavianus Augustus
(63 в.с.-14 А.d.)

(63 в.C.-14 A.D.)
m. (1) Clodia, (2) Scribonia,

$\begin{gathered}\text { Octavia } \\ \text { m. C. Marcellus }\end{gathered}$
$\begin{aligned} & \text { M. Marcellus } \\ & \text { (43 в.c. }-23 \text { в.c.) } \\ & \text { m. Julia, daughter } \\ & \text { of Augustus }\end{aligned}$
ity, but in the eastern part of the Empire, which would presuppose wide-spread fame. We know that Nero Drusus enjoyed an unusual popularity; but this was to a great extent after he had distinguished himself as a general against the Germanic tribes, when he was over twenty years old. We have no record of any event that would have called for the erection of a statue to him in his early teens; and being the younger stepson of Augustus he was of course not in the direct line for succession to the throne. Similar considerations apply to the younger Drusus. As a son of Tiberius he was indeed at one time in the direct line for the succession, but this was only after the death of Caius Caesar, when Drusus was nineteen years of age. He was at no time particularly popular, and his public life began when he was over twenty. Marcellus was distinctly a favorite as a growing boy. We learn from Dio Cassius (XLVIII, 38) that Augustus distributed a congiarium to the boys of the Roman populace in the name of young Marcellus in b.c. 29, that is, when Marcellus was fourteen. Such a distinction might possibly lead to the erection of a statue in Rome, but it is doubtful whether it made him sufficiently prominent to be so honored outside of Italy. By the time he married Augustus's daughter, Julia, and was adopted by Augustus as his son, he was eighteen years old, which is too old for our statue. Claudius we know to have been a sickly and neglected child; he did not rise into prominence until he became emperor at the age of fifty-one. The portraits we possess of him all represent him as a man over fifty.

When we come to Caius and Lucius Caesar ${ }^{1}$ the case seems much more hopeful. ${ }^{2}$ Here we have two grandsons of Augustus, the elder sons of his only daughter Julia, and adopted by him as his own sons when quite little. ${ }^{3}$ They were brought up in the imperial palace, under the eyes of Augustus, ${ }^{4}$ who regarded them as his direct heirs. They had to take part in the games as early as possible, in order to recommend themselves to popular favor. ${ }^{5}$

[^38]For the same reason Augustus erected a portico and a basilica in their name. ${ }^{1}$ When Caius was twelve years old, Augustus took him to Gaul to introduce him to his legions on the Rhine. ${ }^{2}$ When he was fourteen he was appointed consul designatus, ${ }^{3}$ an extraordinary honor for so young a boy. The next year he was made princeps juventutis, ${ }^{4}$ which was probably equivalent to definitely designating him as Augustus's successor. ${ }^{5}$ Lucius, three years younger than Caius, was also appointed consul designatus and princeps juventutis some years after Caius. ${ }^{6}$ Both boys performed the religious ceremonies on the occasion of the dedication of the temple of Mars Ultor in 2 b.c. ${ }^{7}$ Such great distinctions brought the boys into unusual prominence, not only in Italy, but-as the probable future emperors-throughout the Empire. They became great favorites of the Roman populace who took every opportunity to show their affection for the two princes. ${ }^{8}$ Coins were struck in their honor in Italy, Spain, Gaul, and all over the East. ${ }^{9}$ A large number of these show Caius and Lucius, as principes juventutis, clothed in voluminous togas. ${ }^{10}$ The erection of statues would be another natural consequence of this popularity; and indeed we know definitely of several through inscriptions. ${ }^{11}$ It certainly is not unlikely, therefore, that our bronze statue represents one of these princes. Whether Caius or Lucius it is difficult to say. The coins, though they show the princes at an early age (which is not the case with the Drusi) do not help us in this matter, as the features are not distinctive enough to have much iconographical value. They both look enough like our statue to make the identification perfectly possible. That is all we can say. Caius, being the elder, and therefore the heir presumptive, may perhaps appeal to us as the more likely subject for our statue. But from

[^39]all accounts Lucius was just as popular as Caius both with the people and with Augustus,' and received the same extravagant honors. His premature death, when only eighteen years old, was regarded as a calamity. His funeral was celebrated with great magnificence, and altars, temples, and statues, were erected in his honor. ${ }^{1}$ Even Tiberius, an exile in far off Rhodes, who had everything to gain by the death of his stepson, found it expedient to write a poem mourning his death. ${ }^{2}$ Moreover we know definitely of the erection of a statue to him in Nicomedia in his fourteenth year. ${ }^{3}$ It seems impossible, therefore, with the evidence now at our command, to choose definitely between these two princes. We can only say that it is probable that our statue represents one of them. ${ }^{4}$

Gisela M. A. Richter.

New York, Metropolitan Museum of Art.
${ }^{1}$ Cf. Gardthausen, op. cit. II, iii, p. 1127.
${ }^{2}$ Suetonius, Tiberius, 70.
${ }^{3}$ Cf. the inscription mentioned by Perrot, Guillaume et Delbet, Exploration archéologique de la Galatie et Bithynie, I, p. 4.
${ }^{4}$ F. Studniczka, in Arch. Anzeiger, 1910, p. 533, has tried to identify busts formerly known as Caligula with Caius Caesar from their similarity to Agrippa. These busts bear no resemblance to our boy and they are also unlike the portraits of Caius on the coins.

# Arctyaeological <br> Jnstitute <br> of $\mathfrak{A m e r i t a}$ 

## BRYGOS AS A PAINTER OF ATHLETIC SCENES

## [Plates VII-IX]

In his discussion of the work of Brygos (die griechischen Meisterschalen, p. 364) Hartwig remarks that this artist treated all the subjects known to the vase painters of the severe red-figured style except the palaestra, and adds that his failure to include such scenes in his repertory cannot be ascribed to any lack of ability: "wer so vorzügliche, lebendige Komoi malt, wie Brygos, wird schliesslich auch die Bewegungen eines in athletischen Übungen begriffenen Körpers wiederzugeben im Stande sein." Palaestric scenes, he observes, are conspicuously absent from the work of the group Oltos-Peithinos-Hieron to which Brygos belongs, while Euphronios, Phintias, and Douris attained their greatest success in this field.

As regards Brygos this statement stands in need of some revision. One vase from his hand-the cylix in Copenhagen, Gerhard, Auserlesene Vasenbilder pl. 281-which Hartwig groups with erotic scenes ${ }^{1}$ might equally well be described as palaestric. The action takes place in the apodyterion of the palaestra. One athlete is putting on his himation, another is scraping himself with a strigil, a third holds a pair of jumping weights, and the locality is indicated in characteristic Brygan fashion by two Doric columns and by athletic paraphernalia placed in the field-measuring rods, strigils, aryballi, sponges, bags for disks and halteres. Furthermore, quite a number of vases with representations of athletic exercises are known which were painted by followers and imitators of Brygos, and it is not an unreasonable inference that these were inspired by works of the master, though examples surely by his hand have not hitherto been noted. The most

[^40]important among these lesser artists is Hartwig's "Meister mit dem Liebling Diogenes" who stands so close to Brygos that authorities have in some cases found it difficult to distinguish his

products from those of his more brilliant contemporary. Of the twelve vases which Hartwig attributes to him ${ }^{1}$ four are decorated

[^41]with athletic scenes. These are the cylix until lately in the Jekyll collection (Gerhard, l.c. pl. 271), the well known cylix in the British Museum, E 46, with a representation of wrestlers, a cylix

known only from drawings in the Apparat of the Berlin Museum, and the cylix in Munich, No. 279. An unpublished cylix in Boston has also been ascribed to this master, but it is more prob-
ably the work of some less skillful imitator of Brygos. In the interior is a nude youth putting on a dotted himation; the exterior has on one side a youth with halteres and two others. with javelins practising in the presence of a trainer, and on the other side a trainer watching two boxers. A cylix in Brussels with similar scenes is noted by Hartwig as related to Brygos, ${ }^{1}$ and the list could, doubtless, be increased. ${ }^{2}$ Mr. J. D. Beazley informs me that there is a second cylix with athletic scenes in Copenhagen which he assigns to Brygos himself. It is apparently unpublished, and I have no further information as to the subjects represented.

Of considerable interest in this connection is a vase acquired by the Museum of Fine Arts, Boston, in 1910, ${ }^{3}$ and here illustrated on Plates VII-VIII and Figures 1-3. According to reliable information it came originally from Greece. It is a cotyle, or scyphus, of moderate size (height, 0.145 m .; upper diameter, 0.18 m .) and nearly complete preservation, though it has been broken into many pieces. On side A the small boy's right leg. and part of the lower edge of his chlamys are injured, and a break runs across the nose of the athlete. On side $B$ the athlete's right ankle, the right ankle, left foot, and the adjoining edge of the himation of the trainer, and part of the pick are missing. The varnish is of a deep black tone and much of the reddish wash (Lasur) remains intact. The outlines are drawn with relief lines throughout. Red paint is used for the wreath worn by the paedotribes on A , for the fillet of the boy and for the thongs by which the aryballi are suspended. Thinned paint is used to indicate the light hair of the boy, the hair on the body of the trainer on $A$, the whiskers of the athlete on $A$ and the trainer on $B$, and for the inner markings on the bodies. The latter are so faint that they can be made out only with difficulty. In the drawings (Figs. 1 and 2) the red paint is rendered by hatching, the thinned paint by dotted lines.

On each side is a representation of an athlete practising with halteres under the direction of a trainer; but monotony is skill-

[^42]fully avoided by variations in the action and poses of the figures and by a different choice and arrangement of accessories.

The athlete on side A is shown in a typical attitude of the broad jump. His weight is on his right leg which is bent; his left is extended before him with the ball of the foot touching the ground; his arms are swung forward to a little above the horizontal; his body is drawn back to maintain an equilibrium. The moment represented is at the end of the preliminary upward'swing of the weights. ${ }^{1}$ These are of the more usual of the two prevailing types, consisting of "a nearly semi-circular piece of metal or stone, with a deep recess in the straight, lower side which affords a grip." ${ }^{\prime}$ The end held to the front is considerably larger than the other. The bearded paedotribes stands facing the youth. He wears a himation, and leans forward supporting himself on a knotted stick held in his left hand. With his right he holds out a long rod, as if to give emphasis to his remarks. In the field, between the two figures, are a pair of measuring rods, crossed. These seem to have no special significance, but to have been added to improve the composition. A small boy standing behind the jumper is an interested spectator of the scene (Fig. 3). He has blond hair and wears a chlamys; in his left hand he holds the athlete's staff, in his right his aryballus and sponge. Above, a sling-shaped bag in which the halteres were carried is suspended from the wall.

On side $B$ the positions of the trainer and athlete are reversed. The former stands in profile to left, with his right leg advanced and his body bent forward slightly. His hands holding the weights are lowered, one being swung out to the front, the other to the rear. The halteres are larger and of a different type, consisting of an oval piece of stone with pointed ends, and hollowed out to admit the fingers. ${ }^{3}$ The attitude is in this case less clear, but probably it represents a moment during the downward swing

[^43]of the weights which succeeded the position illustrated by the youth on side A. Actually the arms would be kept parallel, but the artist has sacrificed photographic accuracy in order better to display the athlete's whole body. The trainer-this time a youth-wears a himation and shoes, leans upon a knotted staff which is propped


Figure 4.-Detail from Side A of Cotyle under his left armpit, and holds a long rod in his right hand. The athlete's himation is laid on a stool behind him, and above it his strigil, aryballus and sponge are suspended. Behind the trainer is a pick used to soften the ground of the $\sigma \kappa \dot{\alpha} \mu \mu a$, or landing place.for the jump, and a bag for halteres hangs above it.

The figures on both sides give the impression of having been drawn more for their own sake than as elements in a carefully thought out scheme of decoration. They are given plenty of space, and the arms and legs, the various rods and knotted sticks, make a medley of crossing lines. Our attention, like that of the trainers and the small brother, is focussed upon the two athletes and their manipulation of the weights. These long-legged, powerfully developed youths are drawn in a few simple strokes with a freedom and understanding of anatomy which reveal the hand of a master of the first rank. Their bodies are shown in three-
quarter view without a trace of the archaism which is still pronounced in the work of Euphronios and Phintias, and of Douris in his earlier period.

As to the authorship no doubts can be entertained. The dotted mantles of the trainer on A and the athlete on B , the indication of hair by means of thinned paint along the median line of the bearded trainer's body, the drawing of the stool with the mantle upon it, the way in which the himation of the trainer on B is draped so as to expose one side of his body, the drawing of the knotted sticks, the indication of the locality by means of athletic paraphernalia are all details which suggest Brygos strongly without amounting to actual proof. This is, however, furnished by the drawing of the heads. The form of the skull, low, deep from front to back and flat on top, the profile with the tip of the nose turned up (in three cases), the full lower lip and heavy chin, the narrow eye of the athlete on A, the intense expression of all the faces-these are infallible criteria. And, if more were needed, the droll figure of the half grown boy, with his blond hair, snub nose, drooping nether lip, and twisted pose, has in itself almost the value of a signature.

Brygos has left us much more ambitious works, but these two simple groups exhibit in a marked degree his facile and sure draughtsmanship as well as the liveliness and dramatic force which he was able to impart to his designs. They are of interest also as showing that he did not neglect the palaestra as completely as had been supposed-the point which has furnished an excuse for their publication here.

The Museum of Fine Arts has possessed since 1901 another unpublished vase with a representation of an athlete, which Mr. Beazley has recently recognized as a work of Brygos. It is a small cylix (height, 0.075 m. ; diameter, 0.205 m .), complete, but put together from many pieces. The exterior is undecorated; the picture in the inside (Plate IX) is enclosed within a border of maeanders, intercepted at intervals by squares containing crosses. A nude youth wearing a red fillet stands in profile to right with his knees slightly bent, holding a strigil in his right hand and stretching out his left arm. He is playing with a small dog which crouches before him with its head raised. Behind the athlete is his himation lying on a stool. In the field are a pair of measuring rods, crossed, and the inscription HOГAIS KAVOS. The pose resembles that of the athlete on side B of the cotyle, save that
the upper part of the body is turned to the front. Here again it is the drawing of the head, especially the characteristic profile, which makes the attribution certain. The design is admirably adapted to the circular field; of details the lively and natural pose of the dog and the clever drawing of the youth's left hand are especially noticeable.
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## THE DEVELOPMENT OF SCULPTURE IN LOMBARDY IN THE TWELFTH CENTURY

Notwithstanding the rich, and in many respects excellent, literature relating to early Lombard sculpture, ${ }^{1}$ and in a measure because of that very richness (which has plunged the would-be student into a mass of discussion frequently important, but has impeded the view of the period as a whole), there has yet appeared no general account of the broad tendencies of artistic evolution in Lombardy in the twelfth century. It is the object of the present paper to give in outline the history of that evolution. In order to accomplish this in a limited space, it has been necessary to state briefly, in a sentence or two, the result of my own researches and those of other scholars, the full discussion of which would not only far exceed the space at my disposal, but would detract from the clearness and sharpness of that fundamental outline which it is my primary purpose to draw. ${ }^{2}$

One of the most striking aspects of the sculpture of the twelfth century in Italy is the fact that at a period when elsewhere throughout Europe art was progressing by means of a compact and closely woven tradition, in which the personality of the artists was generally lost, in Italy, on the other hand, this tradition was-I will not say non-existent-but suddenly broken and modified by the appearance of artists of strong individual personality, who frequently interrupted the normal development of art and diverted it to new and unexpected channels and sometimes even rolled it backward by the sheer force of their genius. Nicolò Pisano, Giotto, Altichieri, Massaccio, Donatello, Michelangelo and others of like dominating personality did not in later times sway and change the course of the development of art

[^44]more notably than did Lanfranco, Guglielmo da Modena, and Benedetto, called Antelami, in the twelfth century.

Few single buildings have so profoundly influenced the history of art as the cathedral of Modena (Fig. 2). In the portions of this structure erected between 1099 and 1106, two geniuses of the first class left works the influence of which is notably stamped, not only on all the twelfth century, but on the Gothic and even the Renaissance periods throughout Italy. To the first of these -Lanfranco-is due the deliberate renunciation of the rib-vaulted basilica, and the substitution of a new type of edifice in which structural purposes are subordinated to decorative considerations. To this Lanfranco it is due that Gothic architecture arose, not in Italy, but in France. ${ }^{1}$ The eight succeeding centuries of architecture in Italy, whether for better or for worse, rest directly and fundamentally upon his work. From him they learned to sacrifice structure to decoration. Not only does his personality echo down through the centuries thus in the underlying philosophical concept of Italian art, but also in tangible motives of decoration. The Lombard porch and columns resting on the backs of lions-both so constantly repeated in later Italian archi-tecture-were first introduced by Lanfranco.

While Lanfranco was revolutionizing architecture, Guglielmo was revolutionizing sculpture. From the decline of Roman art to the time of Guglielmo, there were executed in Europe, so far as we know, no really serious figure sculptures in stone. Hildesheim, the bronze doors of S. Zeno at Verona, and other isolated monuments, prove that sculpture, especially in metal, was not an absolutely lost art, but its products were isolated, sporadic, lifeless, and in general without great artistic value. A typical example of the depths to which figure sculpture in Lombardy had fallen in the eleventh century is furnished by a capital representing the Resurrection of Christ in the cloister of Acqui (Fig. 1) executed in $1067 .{ }^{2}$ In 1099, Guglielmo-or Wiligelmo, as he calls himself-began his notable decoration of the cathedral of Modena. About the same time, important stone sculptures were executed at Pontida ${ }^{3}$ and at Moissac. Although the three

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Figure 1.-Capital in the Cloister at Acqui (Photo. A. K. P.)


Figure 2.-Modena; Cathedral (Photo. A. K. P.)
groups show faint points of contact, their relationship to each other and their derivation remain obscure. ${ }^{1}$. It is, nevertheless, evident that Guglielmo is more advanced than the sculptors of Moissac or Pontida.

By Guglielmo's hand we have only the sculptures at the cathedrals of Cremona and Modena, yet these are sufficient to reveal clearly and definitely his artistic personality. ${ }^{2}$ Like Lanfranco he is an innovator; like Lanfranco also he is entirely careless of architectural propriety and structural considerations. His sculptures are placed on the walls of churches, as pictures might be disposed on the walls of a museum. This characteristic cannot perhaps be better illustrated than by comparing the entirely architectural sculptures of French cathedrals, such as Reims or Amiens-where the lines of the sculptures follow out and accentuate the structural members-with the façade of Modena (Fig. 2), in which Guglielmo has inserted a band of sculpture quite

[^46]For a fac-simile and a discussion of the difficulties see G. Bertoni, Atlante Storico Paleografico del Duomo di Modena, Modena, Orlandini, 1909, pl. I.

Similarity of style leaves no doubt that the remaining sculptures of the façade of Modena are by the same hand as the Enoch and Elijah. (See the reproductions in Bertoni's Atlante.) It is also evident that the sculptures of Cremona are by the same hand. Not only are the subjects-Enoch and Elijah supporting an inscription, Sacrifice of Cain and Abel, caryatids, etc.-identical with those of Modena, but they are treated in precisely the same way. The architectural details are analogous, the same inscriptions are repeated, and the same technical mannerisms are found in both series. Compare the illustrations in Bertoni's Atlante with those in Monteverdi's Cremona (Milano, Bonomi, 1911. L'Italia Monumentale, No. 18).
arbitrarily. It is true that in the prophets of Cremona (Fig. 3) Guglielmo instituted the motive of jamb sculptures, which, carried over by the French, became one of their most characteristically structural motives. ${ }^{1}$ Yet the Cremona statues are in themselves primarily decorative.

Guglielmo's art (Fig. 4) is essentially coarse; its pervading characteristic is a peasant quality. He is interested primarily in telling a good story, and chooses in preference simple and obvious subjects. His figureswhich are always short and stocky-tend to be over-corpulent and invariably suggest the well-fed, thick-witted bourgeois. An element of caricature is frequently present in the faces; Guglielmo even does not hesitate to affix a sarcastic inscription criticising the
${ }^{1}$ The Cremona prophets-like all the sculptures of Guglielmo at Cremona-date from 1107-1117. The former date is fixed by the inscription in the sacristy:


Figure 3.-Ciremona; the Prophet Isatar, by Guglielmo -dA Modena (Photo. A. K. P.)
+A $\overline{N N}$ DNICO INC $\widehat{A R}$ NACO $\cdot \bar{M} \cdot \bar{C} \cdot V I I \cdot \mid N D I$ TIONE $\cdot X V, \overline{\text { PSIDENTE }}$

## DOMINO PASCALE

IN ROMANA SEDE

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the latter by the fact that in 1117 this primitive cathedral was destroyed by the great earthquake (Chronicon Cremonense, ed. Muratori, R.I.S. VII, 633). The cathedral lay in ruin for twelve years (Sicardi Episcopi Chronicon, ed. Muratori, R.I.S. VII, 594) or until 1129, when a reconstruction was begun in a new style. Fragments of the earlier edifice ruined in 1117 were, however, preserved, among them some of the sculptures of Guglielmo. The fact that Guglielmo originated the motive of jamb sculptures has not, I believe, before been recognized.
morality of the scriptures on his relief of the sacrifices of Cain and Abel. ${ }^{1}$ His composition is often rather good, and he surrounds his figures with a space that at times even makes one think of the restfulness of Giotto.

The art of sculpture as it had been evolved by Guglielmo was developed by his successors in Emilia and in Lombardy during the first three quarters of the twelfth century. Some of these successors, such as Nicolò and Guglielmo da Verona, are known by name. Others, such as Guglielmo's two assistants at Modena,


Figure 4.-Modena, Cathedral; Relief by Guglielmo da Modena (Photo. A. K. P.)
one of whom worked also at Borgo S. Donnino, the other at S. Celso of Milan, or the sculptor who worked at the cathedral of Parma and at Sasso, or that other who worked at Nonantola, are known only by their works. These various artists have all a strong and definite personality, and are characterized by certain peculiar technical mannerisms. Yet they are, nevertheless, all so thoroughly under the influence of Guglielmo and of his style that so acute a critic as Venturi has confounded Guglielmo da

## ${ }^{1}$ HIC PMIT| HIC PLORAT| GEMIT HIC| NIMIS ISTE $\widehat{\text { LABORAT }}$

The hic refers to Cain, the iste to Abel.

Modena with Guglielmo da Verona, and has assigned practically all of the twelfth century sculptures of northern Italy to one man and his assistant. ${ }^{1}$

Of the successors of Guglielmo da Modena, the most important
${ }^{1}$ This blunder-which I am the first to rectify-originated through the muchdiscussed mosaic inscription at Ferrara, destroyed in 1712. Baruffaldi copied it before its destruction as follows:

> Il mille cento trentacinque nato,
> Fo questo Tempio a Zorzi consecrato
> Fo Nicolao Scolptore
> E Glielmo fo l'Auctore.

In this version the inscription was interpreted not unreasonably to mean that Guglielmo and Nicold, the two artists who are known to have worked together at S. Zeno of Verona, collaborated in the construction of the cathedral of Ferrara. In deference to the supposed documentary evidence, it was necessary to find some sculptures at Ferrara to assign to Guglielmo da Verona. His personality being thus confused, it was even possible to identify Guglielmo da Verona with Guglielmo da Modena, although the styles of the two men, it is now evident, were radically different. The recent researches of Bertoni (L'Iscrizione Ferrarese del 1135. Bergamo, Istituto Italiano d'Arti Grafiche, 1907; also articles in Studi Medievali, Vol. II, 1907, pp. 239, 477), have proved that the version of the inscription as published by Baruffaldi was the result of a careless restoration executed after the cathedral had been damaged by earthquake in 1570, and that before that date the inscription read:

## LI MILE CENTO TRENTA CENQE NATO FO QTO TENPLO A. S. GOGIO. DONAATO da GLELMÔ CIPTADIN P[ER] SO AMMORE E NE FO LOP[ER]A NICOLAO SCOLPTORE

From this correct version we learn that the Guglielmo who coöperated in the construction of Ferrara was not an architect or sculptor, but the famous captain of the people who, as we know from other sources, bore the expenses of the construction. When it is once established that we are not obliged to recognize the hand of any Guglielmo at Ferrara, the whole question becomes clear. Ferrara is the work of Nicold alone, as are also the sculptures of the cathedrals of Verona and Piacenza. At S. Zeno of Verona the works of Nicold and Guglielmo da Verona are each signed, so that no confusion is possible. In those signed by Nicold (Fig. 5) we find the same style as in his other works. In those of Guglielmo da Verona (Fig. 6) we find an entirely different hand, to which can be ascribed no other extant works in northern Italy. The two Guglielmos of Modena and Verona are obviously widely separated; indeed, Guglielmo da Verona resembles Nicolò more closely than he does Guglielmo da Modena (Figs. 3, 4, 5, 6, 11).


Figure 5.-Verona, S. Zeno; Reliefs by Nicolò (Photo. Lotze)
was undoubtedly Nicolò, who has left us signed works at Sagra S. Michele, the cathedral of Ferrara, the cathedral of Verona, and S. Zeno of Verona (Fig. 5). Analogy of style makes it


Figure 6.-Verona, S. Zeno; Reliefs by Guglielmo da Verona (Photo. A. K. P.)
possible to attribute to him also the sculptures in the cathedral of Piacenza. Nicolò improved notably the art of Guglielmo, but he developed it always along essentially the same lines. The Guglielmo tradition was brought to its highest point by two unknown sculptors, one of whom produced the prophet in the Sagra of Carpi (Fig. 7), the other the ambo sculptures at Castell'Arquato (Fig. 8). The prophet of Carpi (Fig. 7 ) is a remarkable production, full of psychological content, and executed with admirable technical mastery. The strength of the Guglielmo tradition, however, is


Figure 7.-Prophet in the Sagra, Carpi (Photo. A. K. P.)
demonstrated by the background, which is an exact reproduction of the water in one of the sculptures of the Porta della Pescheria at Modena, in the treatment of the feet, of the draperies, of the hair, and of various other details. Of the superb sculptures of Castell' Arquato, the finest is the angel of St. Matthew (Fig. 8), a figure not unworthy, in my judgment, to compare with the master-


Figure 8.-Castell 'Arquato; Angel from Ambo (Photo. A. K. P.) pieces of archaic Greek sculpture. The composition is strikingly successful; the drawing of the wings is singularly rhythmical and majestic; ${ }^{1}$ the entire figure is full of meaning, and breathes an exquisite spirit of poetry. Technically and spiritually, however, the style is that of Guglielmo da Modena, as may be seen in the details of the technique, the heavy, coarse drapery, and the clumsy feet.

With Benedetto dawns a new era in Lombard sculpture. As Lanfranco and Guglielmo had brushed away the traditions of the eleventh century, Benedetto brushed away those of the twelfth century. We know little of him besides what may be deduced from the internal evidence of his works. There are only two inscriptions. One, on the Deposition of the Parma cathedral is as follows:

## ANNO MILLENO CENTENO SEPTVAGENO: OCTAVO SCVLTOR PATVIT M $\overline{\text { SEE }}$ SEEVVDO

## ANTELAMI DICTVS SCVLPTOR FVIT HIC BENEDICTVS

In the interests of his verse, Benedetto has rendered exceedingly

[^47]obscure the important information this inscription was intended to convey to posterity. At least it is clear that the Deposition was executed in February, 1178. ${ }^{1}$ The other inscription simply


Figure 9.-Serravalle; Bapristery (Photo. A. K. P.)
${ }^{1}$ The difficulties centre about the first word of the last line Antelami. The usual interpretation: "This sculptor was Benedetto called Antelami," which has gained for Benedetto the name Antelami, by which he is now usually known, is exceedingly dubious. Nicknames for artists derived from the town from which they came were common in Italy in the fifteenth and sixteenth centuries, but there is no evidence that such were used in the twelfth century. Furthermore, in the inscription of the baptistery our artist calls himself simply Benedetto, and nothing is said about Antelami. Two other interpretations are possible. One is to construct dictus fuit together and take Antelami as a genitive. The last line then would mean "This sculptor was called Benedetto of Antelamo." Antelamo would be, not the name of Benedetto's father, but of the place from which Benedetto came. In fact, a valley of this name did exist and was renowned for its carpenters (Hist. Pat. Mon. XIII, 903). The second is, to assume that Antelami is written by error for Antelam' = antelamus. Now, antelamus was the regular word for builder in certain parts of Italy (See Michele Lopez, Il Battistero di Parma, Parma, R. Deputazione di Storia Patria, 1864, 4 to p. 126). We should then construe antelamus, the first word of the third line, with the second line, just as octavo, the first word of the second line obviously is joined grammatically with the first line, and translate: "In February, 1178 , the builder revealed his art as a sculptor. This sculptor was called Benedetto."
states that Benedetto began the baptistery of Parma in 1196. The second line of the Deposition inscription implies that this was Benedetto's earliest work in sculpture, but he may well have tried his wings previously in architecture. I have little hesitation in attributing to this period before 1178 the charming baptistery at Serravalle (Fig. 9), a building in which are found no sculptures, but all the characteristics of Benedetto's style as an architect. The building shows a complete departure from the normal Lombard type. It is constructed on classical models and built of finely carved blocks of marble, and is supplied with classical mouldings executed with phenomenal delicacy. So admirable is the execution in this building that it has frequently been taken for a Roman ruin. In the baptistery of Parma, we find the same classical tendencies, the same love of horizontal lines, the same complete breaking away from the Lombard tradition. In Benedetto's earliest sculpture of the Deposition (Fig. 10)—which is in all probability part of the altar of Nicodemus, not of an ambo, as is usually stated ${ }^{1}$-we find already clearly shown all

[^48]the characteristics of his art. He has broken entirely with the old tradition of Guglielmo da Modena. Instead of coarse draperies we find draperies exceedingly fine, falling in delicate, ethereal folds. These draperies are more or less directly derived from the draperies of Chartres ${ }^{1}$-in fact, French influence is obvious throughout the work of our sculptor. Benedetto was a deeply religious man, interested primarily in the dogmas of the church and in subjects of profound philosophic and religious content. Guglielmo da Modena had rarely treated symbolic


Figure 10.-Parma, Cathedral; Deposition by Benedetto (Photo. A. K. P.)
subjects, and his followers never. Only once in the cathedral of Modena do we find a certain profundity of thought in the relief in which Jacob wrestling with the angel is put in parallel with the strife of Faith and Fraud from Prudentius ${ }^{2}$ (Fig. 11); but, as a rule, he and his followers are content to illustrate the

[^49]Bible in a straightforward and perfectly matter-of-fact way, at times-as has been said-even with a touch of irreverence. Benedetto, on the other hand, chooses subjects full of allegorical significance and treats them with profound religious feeling. In the Deposition (Fig. 10) we have the symbolic figures of the Church and the Synagogue, the Sun and the Moon, John and Mary. In the portal of the Parma baptistery is represented the highly symbolical parable from the story of St. Barlaam. ${ }^{1}$


- Figure 11.-Modena, Cathedral; Combat of Truth and Fraud; Jacob Wrestling with the Angel; by Guglielmo da Modena (Photo. Orlandini)

Even more profound is the subject of the west portal, where we have on the two jambs the six ages of the world, the six ages of man, the six works of mercy and the six scenes from the parable of the vineyard, all put in parallel. These reliefs contain some of the deepest thoughts of the mediaeval philosophers and theologians. In the lunette is placed the Last Judgment. The artist evidently wishes to signify that it is only by performing the works of mercy that man can pass through the six.ages of his life in safety, and be prepared to face the terrible Last Day. ${ }^{2}$
${ }^{1}$ Duchalais, 'Explication des sculptures du tympan du baptistère de Parme au moyen de la parabole de St. Barlaam.' Mémoires de la Société Impériale des Antiquairies de France. 3me Série, Tome II, 1855, p. 277.
${ }^{2}$ See Didron Ainé, 'Les Oeuvres de Miséricorde,' Annales Archéologiques, Vol. 21, 1861, p. 195; also 'La Vie Humaine,' Annales Archéologiques, Vol. 15, 1855, p. 413).

This Last Judgment is strikingly analogous to representations of the same subject in French plastic art, notably that at Bourges. There is no doubt that Benedetto was powerfully influenced by French models. This is evident also in the façade of Borgo.S. Donnino, the disposition of which reproduces the façade of St.-Gilles.

The sculptures of Borgo S. Donnino executed before the baptistery of Parma, show Benedetto's art perhaps at its best. The two figures of Ezechiel and David (Fig. 12) in their nobility and poise are the masterpieces of twelfth century, I might almost say of mediaeval, sculpture in Italy. One of the finest examples of Benedetto's later style is the Flight into Egypt of the Parma baptistery (Fig. 13). Superb in composition, full of significance, breathing poetry from every line, this composition easily merits a place among the greatest achievements of plastic art. Although an architect, Benedetto, in this relief as elsewhere, shows himself a singularly unarchitectural sculptor. He never hesitates to sacrifice architectural lines and propriety to that dramatic action and appeal which he so particularly loved.

Benedetto, like Guglielmo, was much imitated, but, his successors, unlike those of Guglielmo, never succeeded in founding a living and permanent tradition. The magic of his art lay too much in the prosecution of technical details, in the denotation of psychology, and in exposition (by that I mean


Figure 12.-Borgo San Donnino; David, by BeneDetto (Photc. A.K. P.) the interesting telling of a story) to lend itself readily to imitation. His followers ranged from mediocre to bad. Like Michelangelo, Benedetto broke a tradition and left chaos. Thus we find that in the well-known sculptures of the ambo at Modena an imitator of Benedetto has succeeded in reproducing only his mannerisms. Throughout the Appenini Parmigiani are extant numerous crude imitations of Benedetto's work, which often-as at Bardonesink to the last depths of crudity. At Berceto we have an imita-tion-or perhaps it is a parody-of Benedetto's Dance of David.


Figure 13.-Parma; baptistery; Flight into Egypt, by Benedetto (Photo. A. K. P.)


Figure 14.-Parma; baptistery; Dance of David, by Benedetto (Photo. A. K. P.)

This lunette of the Parma baptistery (Fig. 14) is one of his most beautiful and profound works. The King David who plays is Christ, who announces through the harp (the Church) of ten strings (the ten commandments), His new message. The four musicians, Asaph, Heman, Ethan and Idithun, are the four Evangelists, by means of whom the Gospel of salvation was preached to the nations. The figures of all ages and both sexes who dance with joy are the peoples of the world, saved by the divine message. ${ }^{1}$ At Berceto this subject was caricatured (Fig. 15). David appears as an ass, the Evangelists as various


Figure 15.-Berceto; lunette of western portal (Photo. A. K. P.)
grotesque animals. The crude, almost preposterous imitation of the technical execution of Benedetto leaves no doubt that this debased sculptor was one of his followers. In the darkest hour of the Dark Ages cruder works had hardly been produced. Nevertheless, the school of Benedetto was not absolutely sterile, but the task of tracing the links which connect it with Nicolò of Apulia, called afterwards Pisano, must be left to the historian of thirteenth century sculpture.
${ }^{1}$ The symbolism of this subject, which is not uncommon in mediaeval art, has not before been explained, but is evident in the light of a passage from Walafried Strabo (Glossa Ordinaria, Lib. I, Paral. ed. Migne, Pat. Lat., CXIII, 660).

The very last years of the twelfth century saw the appearance in the extreme north of a new genius, whose name is unknown, but who shows himself in his works no less brilliant, no less individual, no less revolutionary, than Benedetto himself. This sculptor worked in stucco at Cividale, S. Pietro di Civate, and at S. Ambrogio of Milan, where he executed the much discussed ciborio. He introduced a new medium-stucco-by means of which he obtained a novel and striking technique. His art rests primarily upon his Lombard predecessors and he shows points of contact particularly with that sculptor (whom I call the "master of Benedetto") who has left us the two admirable prophets of the Piacenza museum. Nevertheless he does show certain characteristics which cannot be explained except on the hypothesis of foreign influence. This foreign influence cannot come from Constantinople, as has been assumed, for the works of our sculptor depart radically from the Byzantine tradition, not only in style, but in details of iconography. ${ }^{1}$ Numerous points of contact with the schools of the Ile-de-France, Languedoc, and Provence have long convinced me that this foreign influence came not from the Orient, but from the Occident; and photographs of Spanish Romanesque sculptures recently shown by Miss King, lead me to venture to suggest the possibility that our artist derived his inspiration in part from Spain. This notable personality, with which the twelfth century closed, inaugurated that long succession of artists in stucco and terra cotta, which flourished throughout the Gothic and Renaissance periods, and culminated in the school of the Della Robbia.

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## THE ROMAN TERRITORIAL ARCH

In a previous paper ${ }^{1}$ I showed how in Roman colonies it was customary to erect an arch at the point where the principal road, before entering the town, intersected the pomerial line or ditch. This arch, often miscalled a triumphal arch, must be called a colony or municipal arch. It served the civic purpose of marking the religious and legal line of demarcation between city and country jurisdiction, as well as the practical purpose of an octroi barrier. In this custom, Roman towns were following that of Rome itself and Rome had derived the idea from older cities of Latium and Etruria. My theory has been quite generally accepted and, so far as I know, has not been opposed.

In the present paper I propose to apply the same theory to territorial boundaries. It is a well-known fact that all territorial units in ancient Italy were marked by ditches and stones or cippi, ${ }^{2}$ and that the consecrated plow was used in starting these sacred territorial ditches just as much as in starting the pomerial ditches of the urbes. More than this it is generally admitted by recent historians that the original unit for the tribe was not the city or urbs but the canton or territory; that the fortified oppidum was at first only a temporary place of refuge from forays for man, beast, and property, and that whatever primitive custom or law there may be that relates to the religious consecration of the land and boundaries of the tribe originated in connection with the territory, and was only later transferred to the oppidum, after the town had become a permanent place of residence and pastoral and agricultural life had been supplemented by urban organization. ${ }^{3}$
${ }^{1}$ Revue Archéologique 1905, II (VI), p. 216 ff.
${ }^{2}$ E.g. Cippus with Fines Sabinorum found at Coppido (Petit-Radel), in Annali Ist. 1832, p. 3; cippus with Fines Albensium found at S. Stefano (Phaebonius, Hist. Marsorum, p. 158). See Abate, Abruzzo, pp. 104, 429, 430; and for boundary wall between Sabini and Vestini, p. 43. Lachmann, Gromatici vet., p. 163-164 and passim.
${ }^{3}$ In some regions the old pastoral and agricultural life survived into historic times. In the present Abruzzi region, peopled anciently by the Marsi, Paeligni, Vestini, Aequi, and other tribes, as well as in the neighboring land of the Sabines, the small oppidum remained the rule and the urbs the exception.

It is logical, therefore, that we should look for the origin of the urban colonial and municipal arch in a territorial arch: a territorial arch that evolved out of some boundary mark previous to the use of the arch, such as a wooden lintel across two uprights or a trilithic stone doorway. The Tigillum Sororium in Rome with its wooden posts and lintel was a survival of such protoarches. This idea of a territorial arch is, I believe, entirely new, as was my idea of the colony arch on the urban pomerium.

It would be superfluous to do more than allude to the original similarities between the two classes of urban and territorial boundaries. The annual ceremony of reconsecrating the limits of the city, or amburbium, was paralleled in the earlier rites for reconsecrating the territorial bounds by the ambarvalia. In the same way as the whole of the urbs was reconsecrated as a greater templum to be followed by the reconsecration of each individual templum within the city, so in the territory, each piece of property, marked by its ditches and boundary stones, was reconsecrated by its owner. ${ }^{1}$ That these ceremonies were not confined to Rome but were common to all Italic races is indicated, among other things, by the text of the Iguvian Tables, where the rituals for both amburbium and ambarvale are given according to early Umbrian custom.

It has not been generally understood that Cicero refers to the territorial pomerium and not to the urban pomerium of the new colony when he berates Marc Antony for stealing the territory of the colony of Capua in order to give it to his colony of Casilinum. When he says that the plow that marked the new colony was made to almost graze the gate of Capua, he can only mean the plow which marked its territory. ${ }^{2}$ In the interesting early constitution of the Colonia Julia Genetiva (C.I.L. III, 5439) the instructions for establishing the colony include the digging of the terminal ditch of its territory, the fossae limitales (§104). This ditch was often supplemented by terminal cippi inscribed, where two colonies were coterminous, with the name of one colony on one face and that of its neighbor on the other. In order to show how sacred early boundaries were held to be, it is interesting to note that even as late as imperial times there took place an annual reconsecration of the original territory of the city of Rome: ${ }^{3}$. of

[^51]that territory which was laid out, according to tradition, by Numa, and goes back, in any case, to the time of the Kings, when the boundaries at the furthest, to the east and south, were only about five miles from the city and to the north and west were very much closer. This ceremony was probably in charge of the Arval brotherhood. That these ceremonies of territorial consecration lasted until the close of the Empire is shown by such inscriptions as that now in the Louvre found at Tomi (Kustendje): Matri deum | magnae $\mid$ pro salute $a d q \mid$ incolumitate |. dd. nn. Augg. et Caess. $\mid$ Aur. Firminianus $\mid$ v. p. dux $\mid$ limites prov. Scyt. | bonis auspiciis | consecravit.

This much of an introduction seemed necessary to create a logical necessity for some architectural monument at territorial frontiers. I have for several years held back from publishing this paper, notwithstanding the considerable number of territorial arches that I had listed, because I had not yet found a single one in Italy itself, except just outside Rome. This was not unnatural, because such arches would have been built in Italy, in all probability, only shortly before or during the reign of Augustus, for two reasons: First, because as an architectural form the memorial arch antedated by only a short time the Augustan age, and secondly because by the new Augustan territorial division the importance of the colonial boundaries was much diminished. My hope of finding such an arch in Italy seemed slim, indeed, but I have now discovered it, in primitive Abruzzi: the arch itself is destroyed, and only records of it remain.

This arch appears to have marked the boundary between the Paeligni and the Marsi at the narrow pass called Forca Caruso, which was by nature meant to separate two distinct areas. A colony of veterans was assigned to this region, at Superaequum, by Augustus. These colonists built a brick boundary arch at this pass and C.I.L. IX, 3304 is generally considered to be the dedicatory inscription that belonged to it:

> Liviae. Drusi. F. Augustae

Matri. Ti. Caesaris et
Drusi. Germanici
Superaequani. public
This arch would then have been dedicated to the Empress Livia. It was apparently quite a notable monument for this region.

It is mentioned in the lives of S . Ceridius and S . Rufinus. It spanned the Via Valeria, not far from Corfinium, near the ancient Cerfennia and the modern Castelvecchio. Until recently this neighborhood has been called, from it, all'arco. Near it was Statulae, a station on the Valeria. ${ }^{1}$

Just outside of Rome itself there were three arches, all of them on the Via Flaminia and all seeming to mark certain territorial boundaries. The first of these was at the Mulvian bridge about two miles from the Aurelian wall and three miles from the urbs; the second at the point near the villa of Livia still called from it Prima Porta, eight miles out; the third at a point over twelve miles out, the so-called Malborghetto. Only the last of these arches still exists; it is a Janus of heavy construction and late date which has never been adequately studied; or rather, I should say, of which no thorough study has yet been published. ${ }^{2}$ Of the Prima Porta arch we know practically nothing definite. The arch of the Mulvian bridge can be studied on Augustan coinage, though its identification is not certain (Cohen, Aug. 229-239). Can we connect these arches with any definite territorial limitations?

It is known that the legislation of the late Republican and the early imperial periods not only recognized the sacred boundary of the pomerium as the limit of the urbs but established several other boundaries which must have been marked by visible objects such as cippi and arches. The first and most important was a one mile strip outside the pomerium. Within this mile limit civil jurisdiction obtained; beyond it military law ruled. This is shown, for example, by the Lex Acilia of 631-632 U.c., the Lex Cornelia of ca. 673 U.c. and the Lex Iulia Municipalis, as well as by such texts as Gaius IV, 104-105. The practical object of this was to ensure civil rights to the population which had so overflowed beyond the original limits of the urbs and its pomerium that it was quite as densely settled outside as inside these arti-

[^52]ficial limits. This mile strip corresponds roughly, as Lanciani says, to the expatiantia tecta; and its outer line at one time, at least, corresponded to the line of the octroi or duties. If we put the limit of the urbs at the Porta Ratumena, the mile limit would be at the Aurelian wall on the line of the Flaminia. Here we may imagine an arch to have stood which was probably incorporated by Aurelian in his wall. The next boundary seems to have been the Tiber; for the Flaminia this was marked by the Mulvian bridge with its memorial arch built by Augustus when he reconstructed and lengthened the Flaminian way. It was about two miles beyond the octroi line; that is three miles from the urbs, and here was the first station on the Flaminia. This two-mile wide region, between the densely populated parts of the city and the country proper is the suburban zone which Lanciani calls extrema tectorum. I do not know of any texts that show this Mulvian bridge boundary to have had any special legal significance. On the other hand the law seems to have taken cognizance of a seven-mile limit and of a ten-mile limit. ${ }^{1}$

The site of the Prima Porta arch would about correspond to ten miles from the miliarium aureum.

The Janus arch of Malborghetto belongs to the age of Diocletian or Constantine in its structure which is practically the same as that of the Janus of the Forum Boarium at S. Giorgio in Velabro. I once detached a tile from its walls, which unfortunately broke into fragments of which I was able to recover only one with part of the stamp DD. NN. I believe that it indicates the reign of Diocletian and that the arch marks the boundary of the jurisdiction of the urban magistrates in Diocletian's reorganization of Italy. The modern idea that it may have commemorated the victory of Constantine over Maxentius in this neighborhood is absurd and against Roman custom and law. Arches were not built to celebrate victories in civil wars. Also the Janus

[^53]form was one that from the beginning was associated with topographical boundaries and not primarily with triumphs.

I mention these three arches near Rome more as problems to be investigated in this connection than as in themselves throwing light upon the subject of this paper, and shall now consider certain literary, artistic, epigraphic, and numismatic evidence and then pass to existing territorial arches of assured character outside of Italy.

Territorial Arches of the Agrimensores.-The drawings illustrating the text of the manuals written by the Roman agrimensores of the imperial period which are preserved in the manuscripts are undoubtedly fairly accurate reproductions by early medieval copyists of originals of classic times. The drawings in Lachmann's ${ }^{1}$ edition of Frontinus which present a graphic sketch of various types of the territory of a colony include several where an arch is drawn on the boundary line. Thus, in Figure 41 there is an arch at the stream which forms the natural border of this colony. In Figure 49 there is an arch inscribed IMP.C.AVGVSTVS spanning the road where it crosses the frontier of this other colony. Again, in Figure 62, it is beside a stream that the boundary arch is placed (cf. Figure 38).

There is no doubt, therefore, that in connection with laying out the territory of a colony the official Roman surveyors recognized the custom of placing a colony arch on the line of main approach; this arch certainly has no connection with the town of the colony. It will soon appear that a large proportion of territorial arches were at rivers, because rivers were used for boundaries.

Janus Augusti of the Provincia Baetica.-The clearest epigraphical evidence is that connected with the Janus Augusti in Spain. The famous Via Augusta built by Augustus across Spain to the pillars of Hercules at Gades was spanned on the north border of the province of Baetica, at the river Baetis, by an arch called the Janus Augusti, from which the numbering of the milestones began, reaching southward to Gades. The inscriptions C.I.L. II, 4697 to 4734 show that this scheme continued during the early empire. In 4701 the road is said to extend $a$ Baete et Iano Augusti ad oceanum. In 4702 we read ab arcu unde incipit Baetica viam Augustam [restituit]; while 4703 gives the slight variant, ab Iano A ugusto qui est ad Baetem usque ad oceanum;

[^54]and 4697 still another，viam Augustam ab Iano ad oceanum re－ fecit．Here we find expressly stated that the province of Baetica begins at this arch．The arch－not the river－bounds it at one end and the ocean at the other．Augustus in his reorganization of Spain had made the southernmost section，the Baetica，a senatorial province and the arch marked the point where the Via Augusta，the only Roman imperial highway，in its course from the Gallic border across the whole peninsula，entered this province．It cannot，therefore，be argued that this arch was built here in order to mark the beginning of the Via Augusta， as it was nearer its end than its beginning．

These inscriptions point to another interesting conclusion through their use of the two words ianus and arcus as synony－ mous terms descriptive of one and the same monument．It shows that we can and should apply to an arcus the same sym－ bolism and meaning that is attached to a ianus，that of a conse－ crated passageway on a border－line；it being understood that ianus is the earlier and arcus the later term and that ianus usually denotes the heavier and earlier structure either with four open－ ings or with a heavy and long passageway between the two fronts，whereas arcus is generally used of the thinner，slenderer structure which can be passed only in one direction．This con－ clusion is important as confirming the unbroken unity in the chain of Roman monuments from the Janus of the primitive Rome of Numa to the triumphal arch of the Empire．This unity has always been denied，and I believe that I have been the first to insist upon it．

The Boundary－Arch of Cilicia at Kodrigai．－Dr．Kubitschek ${ }^{1}$ and Professor Ramsay ${ }^{2}$ have brought into prominence，from numismatic evidence，a triumphal arch built on the frontier line of the province of Cilicia ${ }^{\epsilon} \nu$ Kodpeiraıs öpous Kı入iк $\omega \nu{ }^{3}{ }^{3}$ An－ nual games were celebrated here by the inhabitants of Tarsus and of the whole province．They are commemorated on a num－ ber of coins of Tarsus struck off in the third century with the above legend．The title of the place，$\dot{\epsilon} \nu$ Koojetiraus，is un－ doubtedly derived from the triumphal quadriga of the Emperor

[^55]Septimius Severus which apparently crowned the arch. Dr. Kubitschek believes this site to be at the southwest end of Cilicia, perhaps at the arch whose modern title is "Jonah's Pillars," described by writers from Pococke until recent times. Professor Ramsay, on the contrary, gives reasons for identifying the arch of Kodrigai with an arch still existing near Bairamli, some ten miles north of Tarsus, across the Roman highway (Fig. 1). The arches will be described presently.


Figure 1.-Arch of Bairamli, Cilicia
Tarsus owed a great deal to Septimius Severus, who passed through its territory on his way to defeat Pescennius Niger in the greatest battle of his career near Issus. He made a point of punishing or rewarding the cities of Asia Minor and Syria according to their policy in this crisis. He made Tarsus the metropolis of Cilicia and enlarged the province by the addition of Isauria and Lycaonia. There is a tradition that for some time Antioch, which had opposed Septimius Severus, was punished by being deprived of its games, and it is supposed that the games were transferred to Kodrigai and that the charioteers and athletes of Antioch were obliged to go there to compete. The special history of Antioch attributed to Malalas (VI cent.) relates (p. 407) that Diocletian built a stadium at Antioch for the Olympic games in order that Antiochene victors need not go as far as "Codriga" in Cilicia to receive their crown by the river Argyros
 a century the great centre for the games for both Syria and Asia Minor. The arch was presumably built to commemorate the emperor's generosity and the new boundary which he gave to the province. I would not venture to identify it with the remains of the arch called "Jonah's Pillar," but it certainly seems impossible that it should be the Bairamli arch because, as will soon appear, the Bairamli arch is such a thin screen-like structure that it could not have supported or had space for the imperial quadriga that we know to have been on the attic of the Kodrigai arch.

Boundary Arch of Antioch and Mopsuestia.-I will cite two further instances of boundary arches recorded on coins, both of them in Asia Minor.

The coins of Antioch of Caria struck under Trajan-Decius, Valerian, and Gallienus, with the legend ANTI $2 X E \Omega N$, show a bridge over the Maeander spanned by a triple arch. As the river was at quite a distance from the town it is evident that this marked the boundary of the Antiochian territory. ${ }^{1}$

A less clear case appears on the coinage of Mopsuestia, in Cilicia under Valerian. Here an arch appears on a bridge which spanned the Pyramus. It has the inscription ADP.MO世EAT $\Omega N$. $E T . \Gamma K T$ with $\triangle \Omega P E A$ at the bridge and the name TYPAMOC. It is known that the city received the added title of Hadriana, though it was one of the free allied cities, and it seems probable that the arch at the river commemorated the territorial reorganization under Hadrian. It would not be certain whether this was an urban or a territorial arch, as the city was built beside the river, and to add to the difficulty, exactly the same arch and bridge appear on contemporary coins of Aigai, which was situated not far from Mopsuestia. It would seem, therefore, as if bridge and arch marked the boundary line between the territories of these two cities and the mountain tribes on the other side of the river. These coins are described in Head, Hist. Num. ${ }^{2}$ pp. 716, 725.

Arch at the River Scylax.-The two cities of Sebastopolis and Heracleopolis in the province of Pontus in Asia Minor combined to build an arch at the bridge over the river Scylax, a tributary of the Iris, on the line dividing the territory of these cities. This was in 137 A.D. under Hadrian, when the well-known historian

[^56]Arrian was governor of Cappadocia, and the occasion may have been the reorganization of Asia Minor by Hadrian, ${ }^{1}$ after Bithynia and Pontus had been changed, in 135, from a senatorial to an imperial province.

Arches of Trajan's Bridge over the Danube.-On the column of Trajan there are several representations of the famous bridge built across the Danube for Trajan by his chief engineer and architect, Apollodorus of Damascus. This bridge, when completed, had a triumphal arch at each extremity. It was finished during the course of the first Dacian war. Now, it was not until the close of the second Dacian war about five years later, in 106, that Dacia was declared a Roman province, so these arches marked at the time they were built not only the boundary of the province of Moesia but the boundary of the Roman empire in the north. ${ }^{2}$

Passing now to a study of territorial arches which still remain in more or less good preservation, I shall enumerate briefly those of North Africa, Syria, Asia Minor, Macedonia, Gaul and Spain. None of them have any connection whatsoever, with any other buildings or with ancient sites; they are at a distance from any centre of population and are so situated in some cases that it would be topographically impossible for them to be so connected or to be anything but detached boundary marks. Their only connection is occasionally with ditches, defensive walls, or natural passes and bridges. As my object is merely to make their purpose clear and not to deal with them in detail, these arches will not be described. This will be done in the corpus of arches which it is my hope to publish some day.

As the North African arches are in several cases dated and their purpose made clear by inscriptions, they will be mentioned first. of all.

North Africa. 1. Arch of the Zama colony.-At a distance of about three kilometres from Zama and quite unconnected with any other site, is an arch which spans the Roman road at the junction (trivium) of the roads to Carthage and Uzappa. It is dedicated to the Emperor Hadrian as is shown by its fragmentary inscription C.I.L. VIII, 16441:

[^57]> Imp. Caesari divi Traian[i parthici Fil. divi Nervae nep. Traiano Hadriano Aug. Pont. M[ax. Trib. pot..cos..pp. L. Ranius Felix F. Aug. P. P. Pont, arcum cum.. Adiecta pecunia fecit ampliu[s $D D . P P$.

As we know that it was Hadrian who established the colony of Zama, this arch was evidently put up when the boundaries were first established. It was particularly appropriate that it should be built and dedicated by the religious leader and high priest of the community, the flamen augustalis, because the ceremony of consecrating the boundary was a religious one and may well have been delegated under the empire to the leaders of the national politico-religious order of the Augustales, who had charge of the cult of Rome and Augustus. ${ }^{1}$
2. Arch of Thugga (Dougga).-The boundary of the territory of Thugga seems to be marked by an arch which stands on the bank of a stream at a distance of about four kilometres from the town of Thugga, at the junction (trivium) with the road leading from Tunis to Sicca Veneria (El-Kef) through Thibursicum Bure. It was built in 305 a.d. by the colony of Thugga and dedicated to the Emperors Diocletian and Maximian and the Caesars Constantius and Galerius. The inscription reads, C.I.L. VIII, 15516,

| On one face: | On the other face: |
| :---: | :---: |
| Victoriis | Victoriis |
| Imperatorum | Caesarum |
| nostrorum | nostrorum |
| Col. Thugg. devota | Col. Thugg. devota |

It commemorated, probably, the territorial redistribution of Diocletian. That it was dedicated by the colony of Thugga at a distance of four kilometres from the town is absolute proof that it was on the boundary of the colony's territory when we consider that it was also at the natural boundaries of a stream and a junction of highways. ${ }^{2}$
3. Arch near Membressa.-Perhaps the arch near Membressa has a more general bearing than a colonial boundary arch. It

[^58]is at the entrance to the bridge that spans the river Medjerda, called Medjez-el-Bab, which may form the boundary at this point between the province of Africa and the kingdom of Numidia. This boundary was marked for a long distance by a deep ditch called the Fossa Regia, with its line of stones or low wall and with boundary stones at intervals. Poinssot ${ }^{1}$ has traced it to the Medjerda along the watershed line from the chain of hills near Thugga.

There are several other African arches that might possibly be reckoned in this class. I might mention among these the arch dedicated to Commodus in 188 a.d. at Hr. El Ust, in the plain


Figure 2.-Triple Arch at Lambaesis, Africa
called El Ghorfa, not far from Assuras and surmounted by a statue of Janus, indicating that it was a road arch, perhaps on the boundary of Assuras territory (C.I.L. VIII, 16417). This is confirmed by the fact of its dedication by the sacerdos publicus.
4. Arch at Lambaesis.-I mention here a triple arch near Lambaesis (Fig. 2) as it illustrates how arches were used to mark divisions of jurisdiction. In this case the arch seems to mark where military jurisdiction ends and civil jurisdiction begins, or vice-versa. It is known that a large permanent military camp was first established at Lambaesis for the Third Legion, which formed the garrison of the province, and that Hadrian delivered

[^59] Arch. Monum. Hist. 1902, p. 483. Bull. Ant. Afric. III, 1885, p. 110, etc.
a famous oration there. After a number of years, as often happened, a town grew up in the neighborhood of the camp and received city rights under the Emperor Septimius Severus. The city had its territory as a colony and it became necessary to restrict the ground within its limits where military was not displaced by civil jurisdiction. Across the road, therefore, that connected the city with the camp, an arch was built which would seem to mark the boundary between the two authorities. ${ }^{1}$ The road was called Via Septimiana (for the change took place under Septimius Severus) and runs northward. There is another arch on the same road, nearer the city and marking the pomerium line


Figure 3.-Arch "Bab-el-Hawâ," Northern Syria
of the city, while the further arch marks that of the camp. Still another arch stood across the road running east of the camp, toward Verecunda, with a single arcade and built under Commodus (C.I.L. VIII $2699=18112 ; 2700=18246$ ).

Arches of Syria. 1. The Bab-el-Hawa.-There is in the northernmost section of Syria a very interesting instance of a provincial boundary arch in perfect preservation. At a distance of about forty miles from Antioch, the ancient highway leading eastward, from Antioch to Chalkis, is spanned by a plain broad low arch unconnected with any site, ruin or wall (Fig. 3). The region is now called the Djebel Halakah and the name of the natives for this arch is Bab-el-Hawâ "Gate of the Winds." It

[^60]was about half-way to Chalkis (Kinnesrîn), the next large city in this direction, and was in all probability intended to mark the border of the territory of Antioch. The road was the main eastern highway of Roman times, crossing the mountains at their lowest point, where the spurs of the Taurus join the upper Lebanon. The road here passes through a defile so narrow that at times it is literally cut out of the cliff. Then, as it debouches into a wide valley, the arch stands out conspicuously on the declivity. In the valley just below are several towns of considerable size, beyond the sphere of Antioch, especially Sermêda and Dara. I owe to the kindness of my friend Professor H. C. Butler all the above facts in connection with this arch as well as the photograph here reproduced.
2. Jonah's Pillar.-Another and even more important arch in Northern Syria is that which may be considered to mark the border line between the province of Syria and that of Cilicia toward the seabord. It is popularly known, in its present ruined condition, as Jonah's Pillar, and in ancient times probably marked the site of the Cilician Gates, the Kı入iкıaı חú入aı. The arch is not far east of Alexandretta, and south of Pajas, near a castle called Merkes Kalessi, where the last spur of the Amanus mountains helps to form a narrow defile that opens out on the plain of northern Syria at one end while below the other stretches the plain of Issus. This arch was noticed as early as the thirteenth century. ${ }^{1}$ Even in the time of Pococke only the piers remained. They are built of reddish limestone blocks faced with alternate white and blue-black marble blocks with excellent mouldings. From old accounts it is evident that it was a structure far more sumptuous and monumental than the other gates of this class that I have mentioned. This would indicate the age of the Middle Empire. ${ }^{2}$ The monumental inscription of the Emperor Septimius Severus used in the medieval walls of the Merkes castle would favor this hypothesis and may have been taken from the arch which may record the provincial boundary as fixed by Severus before 211 A.d., probably in 194 or 195.
\[

$$
\begin{aligned}
& \text { A]YTOKPATOPAKAILAPA^ [єiкко } \\
& \text { [EПTIMION[[ } \epsilon] \text { OYHPO[ } \nu \kappa \kappa \lambda .
\end{aligned}
$$
\]

[^61]It distinctly favors Kubitchek's theory that this arch should be identified with the Kodrigai arch of the coins of Tarsus. It was near here, on the Issus plain, that Severus' victory over Niger was gained in 194. The idea that this is a boundary arch is also supported by the fact which Pococke noted that a wall was connected with the arch on both sides of the road. From its position such a wall could have no relation to either a city or an enclosure but only to a boundary wall strengthening the defense of the defile. The heavy structure of this arch is perfectly adapted to supporting the imperial quadriga with its figures and its usual accessories which, from its name, we know that the Kodrigai arch must have supported.

We are reminded of the fact that an arch in honor of Germanicus was ordered built by the Roman Senate after his death in the region of Mt. Amanus, that is in these same mountains but further to the northeast. It may have been connected with the Amanian gates.

Cilician Arches. 1. The Bairamli arch.-At about ten miles north of Tarsus, just above a place called Bairamli, a plain arch spans the main Roman highway from Tarsus to the northern Cilician gates and appears to mark the special boundary of the territory of Tarsus. From the exceedingly plain and primitive construction, shown in Figure 1, which is from a photograph kindly sent me by Professor Ramsay, one might feel inclined to connect it with the age of Vespasian, who established the boundaries of the new province of Cilicia in 74 A.D., in which year the 'Cilician Era begins. But such a criterion is very uncertain, as nearly all such boundary arches were plain, and the work of engineers rather than architects. In no case, however, does it seem possible to identify it, as Professor Ramsay does, with the Kodrigai arch, as I have already explained, as it is too thin to support a triumphal quadriga. ${ }^{1}$
2. Arch near Myriandus. ${ }^{2}$ A road arch still spans the highway between Mopsuestia and Issus, not far from Myriandus, near where the coast road running east from Aigai (Ajas) is joined by

[^62]that from Mopsuestia (Missis) to Paias-Alexandretta. It is a plain arch of black basalt set between the rocks of a narrow defile where the road emerges from the Amanus mountains into the plain of Issus. Heberdey and Wilhelm thought they found traces of an earlier arch of white marble which was faced with the basalt at a late date. The narrow valley is spanned at this point by an ancient wall which would probably be found to have been connected with the arch. It may mark the territory of one of the large Cilician cities such as Mopsuestia or Aigai, and recalls the fine bridge boundary arch already mentioned (p. 163). as being reproduced on coins of both these cities and as probably standing on their dividing line along the river Pyramus. The modern name for this Myriandus arch is Karanlik or Demir Kapu, and it is not far from Kurt Kulak. Standing as it does at the north end of the Issus plain it almost faces the arch called "Jonah's Pillar" at the opposite south end, on the border of Syria. It may possibly, in fact, mark the site of the so called Amanian Gates, the 'A $\mu a \nu \iota \kappa a i \pi \dot{\pi} \lambda a \iota$ of classic writers. ${ }^{1}$

Macedonia. Arch near Philippi.-At a distance of about two kilometres from Philippi, the main Roman highway through Macedonia, the Via Egnatia, is spanned by a simple early arch, the upper part of which is in ruins. It has been natural, not to say inevitable, that this arch should have been popularly regarded as a memorial of the battle of Philippi. But this is a mistake. The style, it is true, would harmonize with this early date; but it was against Roman law and custom to celebrate by a triumphal arch an internecine struggle between Romans. A triumph could be celebrated only over public foes. Ammianus Marcellinus, writing four centuries later, says that his contemporary, the Emperor Constantius, was the first to break this law. The only possible hypothesis, situated as this arch is at a distance from the town, is that it marked the limit of the territory of the new colony, which was established here by Augustus very soon after the battle. This was, in fact, the most obvious point for a boundary arch. On other sides the colony's land was bounded by the mountains, the seaboard or a lake; but here it was bounded on the west by a stream, the river Gangos or Gangites, where the highway passed into the plain. The site is similar to that chosen for other territorial arches. ${ }^{2}$

[^63]Gaul. Arches of St. Chamas.-Among existing arches in Gaul I know of but one certain instance of a boundary arch; or rather, in this case, of a pair of arches. This is at St. Chamas, in the neighborhood of Aix, the ancient Aquae Sextiae, between Avig-


Figure 4.-Arch of Alcantara, Spain
non and Arles. There are two arches, one at each end of an ancient bridge over the Thouloubre. They have long been admired for their simple elegance and symmetry and their dedicatory inscription of the time of Augustus:

## L. Donnius C. F. Flavos Flamen Romae <br> Et Augusti. testamento fierei iussit <br> Arbitratu. C. Donnei Venae et C. Attei Rufei.

Here again, as at Zama, there is the religious connection which we have a right to expect. Here also the Flamen Augustalis is connected with the erection of the boundary arch, perhaps of the territory of Aix, probably as a record of the limitation of territory over which he had himself presided in the course of the Augustan reorganization of Gaul. Contemporary Augustan coinage (e. g. Cohen, Aug. 235) shows that this type of bridge arches was well known. ${ }^{1}$

Territorial arches of Spain. 1. Alcantara.-It is curious that, of the few Roman memorial arches that remain in Spain, the majority are boundary arches.

On the spectacular bridge of Alcantara, whose six granite arches, 616 feet long, span the Tagus, the centre is occupied by a perfectly plain arch, 40 feet high, dedicated to Trajan in 105-6 A.D. (Fig. 4). The entire structure was built by the architect Lacer at the expense of twelve municipalities of Lusitania and the arch is probably on the boundary line between two sections of the province separated by the river. ${ }^{2}$.The list of the contributing municipalities is prefaced by the sentence: municipia provinciae Lusitaniae stipe conlata quae opus pontis perfecerunt. The inscription on the arch dedicates the whole group, including the temple, to Trajan (C.I.L. II, 759).

> Imp. Caesari divi Nervae f. Nervae
> Traiano Aug. Germ. Dacico Ponti f. Max Trib. potes. VIII. imp.V. cos V. PP.
2. Bara.-To another province, the northern Tarraconensis, the most important of the three into which Roman Spain was divided, belong two boundary arches. The first, popularly called "Arco de Bara," is about nine miles north of Tarragona itself, on the Roman road to Barcelona (Fig. 5). It was built under Trajan out of money willed by his friend and fellow

[^64]Spaniard L. Licinius Sura. It may well mark the boundary of the colony of Tarraco. The inscription, C.I.L. II, 4282, reads: Ex testamento L. Licinii L. F. Serg. Surae consacratum. -While this arch is not in good condition it is architecturally more interesting than the Alcantara arch and stands at the natural boundary of a stream.
3. Martorell.-The second is called the arch of Martorell and


Figure 5.-Arch of Bara, Spain
stands on the Via Augusta at the south end of a bridge over the river Llobregat (Rubricatus), at its confluence with the Noya; at the logical point of a territorial boundary and quite uncon-nected-as are also the two previous arches-with any ancient site. It is some thirty kilometres west of Barcelona-ancient Barcino-and I am too unfamiliar with the ancient topography
of this region to suggest what boundary it may represent. Still, there is no doubt as to its purpose. ${ }^{1}$

There are two other arches in Spain which I hesitate without study of the sites to place in this class. They are the arch of Cabanes in Valencia, built across the Via Augusta 19 kilometres northwest of Castellon; and the arch of Caparra, built by M. Fidius Macer, near a Roman bridge over the river Ambroz, on or near the site of Ambracia, between Placencia and Ciudad Rodrigo. The fact that this arch is in the form of a Janus would favor the theory that it was a territorial arch unless it could be shown that it stood at the intersection of two main arteries of an ancient city. Only excavations can settle the question in these two cases.

I am far from supposing that the above list includes all the arches that might be enumerated. As it stands it is sufficient, I believe, to prove a general custom carried from Rome and Italy to every province of the Roman empire. This custom was to mark boundaries along Roman highways by means of arches. These boundaries might be the furthermost border of the empire (as at the Danube), or the boundary of a whole province (as in Spain, Africa, or Cilicia), or the territory of a colony (Thugga), or the division between city and camp (Lambaesis). The majority of these arches are placed in one of two situations, both of them natural border lines, either at rivers, or at or in mountain passes. A few are on plains at the intersection of highways. As was the case with urban arches, with those of the pomerium, of the city gates, of the propylaea of temple and forum areas, the boundary arches showed where it was permissible to pass. Elsewhere along the border line it was forbidden to pass. In early times the penalty for doing so was death.

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> Privceton
> January, 1915.

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## PRELIMINARY DOWELS ${ }^{1}$

On many of the plinth blocks of the south wall of the cella of the Parthenon, I observed some time ago the existence of a rather large cavity at the bottom of one end joint of each stone; this cavity is more or less regularly hewn, and, owing to its position, ${ }^{2}$ cannot be the result of the work of robbers searching for the lead sealing of clamps and dowels. Failing to discover, among treatises dealing particularly with the Parthenon, any interpretation of these cavities, I judged that an attempt to solve the problem would not be without advantage.

Examination of a number of these cavities reveals two facts: (1) they are always found at the undowelled end joints of the blocks, and (2) under


Figure 1.-Hole for Preliminary Dowel (Photograph) each cavity, on the upper surface of the block lying below it, is always found a triangular hole, tooled like a pry hole, in which usually remain rusted traces and bits of iron, not fastened by lead. ${ }^{3}$ From this association between the cavity and the triangu-
${ }^{1}$ I am indebted to Mr. W. B. Dinsmoor who kindly assisted me in the translation of this paper.
${ }^{2}$ It is always situated farther from the wall face than the dowel.
${ }^{3}$ These triangular holes are interpreted by Mr. Stevens (in Fowler and Wheeler, Handbook of Greek Archaeology, p. 104, n. 1) as pry holes; he supposes that the pieces of iron in them were used "to give the crow-bar a solid hold in prying."
lar hole, we must understand that there was some intimate relation between them. In the hole was placed an iron object which was shielded or protected by the hollowed cavity.

Exactly what was placed here, I learned only quite recently, when, by means of the scaffolding constructed for the consolidation of the walls decorated with the Byzantine paintings, I was able to examine also the upper courses of blocks. In one of the plinth blocks near the southwest corner was found again the abovementioned cavity, and within this a bar of iron, placed obliquely in the corner formed by the lower block (A) and that (B) which adjoins the block (C) containing the cavity (Fig. 2). The iron of this bar is very badly preserved. The bar has a length of about 0.11 m . and a rectangular


Figure 2.-Preliminary Dowel (Drawing) section ( $0.02 \times 0.03 \mathrm{~m}$.). Against plinth B the bar simply leans, while it is sunk in plinth A by means of the triangular hole, which was described above. Two similar bars, very well preserved, one now in the workshop in the Pinakotheke, the other in the magazine of the Acropolis. Museum, are known to have come from the Parthenon. The former I had observed long before, but was then unable to explain the oblique cutting of its ends; after the recent discovery, however, the purpose for which this was intended is quite evident.

The form of the bar, the manner in which it was braced between the two plinths A and B , and the form of the triangular hole on plinth A , all give evidence as to the function performed by this bar. Leaning against the same joint surface in which the dowels were placed, it served as a brace against horizontal sliding before the succeeding blocks were laid, and kept the joint tightly closed. These bars were doubtless placed before the dowels were set, but they were afterwards left, curiously enough, in their positions, for we find them even now. And since such a protruding bar would have obstructed the placing of the next block in the series,
the latter was partly cut away, leaving a cavity (C) which would surround the bar (cf. Fig. 2).

A new stage in the work of construction is now added to those previously known, namely, the bracing of the stones before they were dowelled. In the preserved building inscriptions, unfortunately, no mention of such work occurs. The name which was applied to the sloping pieces of iron now discovered is, therefore, lacking. In a Delian inscription ${ }^{1}$ are mentioned $\pi \epsilon \rho i \gamma \circ \mu \phi o \iota$, which would be a convenient name for them; but there they appear in the ceiling construction, and were evidently of a different material and served a different purpose. For the present, therefore, they may be termed, because of their function, preliminary dowels.

The need of these bars does not seem very urgent when it is a case of horizontal courses, since their purpose would be fulfilled also by the dowels, after the latter were once in position. These preliminary, or auxiliary dowels were applied, however, to all the stones of the Parthenon. Their use, on the other hand, appears very necessary when it is a case of sloping blocks, as, for instance, raking geisa. And, that such braces were actually employed in the latter case, we learn from a bit of iron still existing in a hole beside the dowel for a raking geison, on the northernmost orthostate of the east tympanum of the Propylaea. ${ }^{2}$ This bit of iron is doubtless part of a preliminary dowel, which here would have been useful, owing to the tendency of the geison to slide before it was dowelled.

Preliminary dowels were employed, therefore, not only in the Parthenon, but also in the Propylaea; on the other hand, they are not found in the Erechtheum or in the Temple of Athena Nike. We must not, however, regard them as an invention of the Periclean period, for a much earlier use of them is proved by the existence of the cavities and holes for them on the stylobates of the older temple of Dionysus and of the Peisistratid peristyle of the Hekatompedon, ${ }^{3}$ near the Porch of the Maidens. The triangular holes in the latter are so large that it is only reasonable to suppose that the preliminary dowels in the Hekatompedon were made of wood; the holes contain no traces of iron. ${ }^{4}$ Here,
${ }^{1}$ B.C.H. XXIX, 1905, p. 460.
${ }^{2}$ A.J.A. XIV, 1910, pl. IV.
${ }^{3}$ Antike Denkmäler, I, Taf. 1.
${ }^{4}$ Similar wooden braces are sometimes used also in work of the present day, but they are taken out before the succeeding blocks are laid.
moreover, the preliminary dowels must have acted also as proper dowels, the latter being absent.

As preliminary dowels do not occur in later buildings, it seems very probable that they were used only during the sixth and fifth centuries b.c.

> Anastasios C. Orlandos.

Athens, 1914.

# ARCHAEOLOGICAL DISCUSSIONS ${ }^{2}$ 

# SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS 

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## GENERAL AND MISCELLANEOUS

Ancient Theories of the Terrestrial Globe.-In Jb. Arch. I. XXXIX, 1914, pp. 98-120 (5 figs.), P. Friedlaender discusses the different views of the round shape of the earth that are found in ancient writers, expecially in Plato and Aristotle. Plato's picture in the Phaedo, of an immense sphere dotted with depressions, on the flat bottom of one of which, the known world, خं oikovjév $\eta$, was situated, with its land, water and air, while on the upper surface, in the region of the aether, was the "real" earth and the abodes of the blessed, is a combination of myth, philosophy, and physical theory, the physical scheme in turn being a combination of the scientific knowledge of the spherical shape of the earth, with the Ionian representation of $\dot{\eta}$ oiкоид' $\boldsymbol{e} \eta$ as the flat top of a circular or elliptical disk floating in space. Aristotle, who was indebted to Eudoxus, knew the five zones, an equatorial Africa, and an undiscovered "back side" of the globe, between the coasts of India and Europe.

Archaeological Notes.-In R. Hist. Rel. LXVIII, 1913, pp. 345-357, W. Deonna suggests (1) that the partial gilding of the bronze statue found in the Syrian sanctuary on the Janiculum is to be explained by the fact that pious worshippers in different lands and at different times have gilded parts of a statue to show their piety, $i$. e. one man a hand, another the face, etc. (2) In Egypt certain ugly dwarfs called nemou or nem are represented crowned with rushes dancing in front of tombs. They have to do with the mysteries of dying vegetation and its rebirth. In the interior of the heroon at Trysa, Asia Minor, dating from the second half of the fifth century b.c., are similar dwarfs, and this suggests that an Egyptian origin must be sought for the other figures. This is true also of the three dancers on the acanthus column at Delphi. Both the acanthus and the calathiscos suggest a rebirth and immortality.

[^66]Prehistoric Bronze Working.-In Die Saalburg, July 5, 1914, pp. 520-529 ( 12 figs.), A. GöTze calls attention to the skill of prehistoric bronze founders especially in making chains.

A Metope from Adam Klissi.-In R. Arch. XXIII, 1914, pp. 346-348 (fig.), O. Tafrali publishes a cut and description of a metope (Tocilescu, Benndorf and Niemann, Das Monument von Adam Klissi, fig. 63, metope 15, Reinach, Rép. de la stat. p. 432, fig. 15) from Adam Klissi, the upper part of which, having fallen into the Danube (it is now at Bucharest) had not been published. It now appears that the figures of this metope are two trumpeters preceded by their leader. Its place is immediately before the standard bearers.

Thracian Archaeology.-In R. Arch. XXIV, 1914, pp. 54-66, Georges Seure gives a brief résumé of the archaeological activity in Thrace in the troubled years 1911-1913 and a summary of the new Bulgarian law relating to antiquities.

A History of Art.-In Storia dell' Arte, Parts 18-20 (Vol. I, pp. 161-256; figs. 79-140), Professor G. E. Rizzo continues his history of Greek art with a discussion of the Mycenaean period, and of Aegean art in its relations with Egypt. In Parts 16-17 (Vol. III, pp. 257-320; figs. 154-193), Professor P. Toesca discusses sculpture and the minor arts in Italy from the fourth to the end of the eighth century A.D.

Tritons.-In Neapolis, II, 1914, pp. 17-24, R. Macchioro-Parra describes the distribution of real or artificial tritons (Triton nodiferum) among the archaeological finds of the ancient world, and explains their appearance, probably in a ritual use, in certain vase-paintings.

Biblical Libraries.-Under the title Biblical Libraries, E. C. Richardson, Librarian of Princeton University, has published a general account of the libraries of antiquity. He begins with the Babylonian period, passes to Egypt, then to Palestine at different times, to Persia, then takes up the Greek libraries, including those at Alexandria and at Pergamon, and finally the Roman libraries. He gives the plans of the principal library buildings so far excavated. [Biblical Libraries. By Ernest Cushing Richardson. Princeton, 1914, University Press. 252 pp.; 29 pls. 12 mo . $\$ 1.25$ net.]

Skulls from Gazelle Point.-In Anthropological Publications of the Museum of the University of Pennsylvania, VI, No. 1 (Philadelphia, 1914), pp. 1-22; pls. $1-10$, G. G. MacCurdy publishes twenty-four skulls from Gazelle Peninsula on the eastern end of Neu Pommern, an island east of German New Guinea.

## EGYPT

The Figures on Proto-Dynastic Stone Palettes.-In Ann. Arch. Anth. VII, 1914, pp. 43-49 (pl.) C. G. Seligmann argues that the figures of defeated tribesmen on two proto-dynastic stone palettes from Egypt show an ethnic relationship to the early Egyptians with more or less negro admixture. The home of these people was probably East Africa.

Monuments of the Period Between the End of the Twelfth Egyptian Dynasty and the Theban Restoration.-In J. Asiat. Series XI, III, 1914, pp. 71-140, 259-301, 519-617, R. Weill endeavors to gather all the inscriptional material
that belongs to the period between the close of the twelfth dynasty and the beginning of the eighteenth dynasty and to arrange this in chronological order.

Hieratic Inscriptions in the Metropolitan Museum.-In B. Metr. Mus. IX, 1914, pp. 236-243 (3 figs.), Miss C. L. R(ansom) calls attention to six small Egyptian vessels acquired by the Metropolitan Museum of New York in 1912, each of which has an inscription in black or red ink in old hieratic writing. It is not known from what site they came. The inscriptions are essentially the same in all, a prayer to Osiris to grant funerary offerings for a certain Senet-menet, daughter of Senet-uzet.

The Girdle of Rameses III.-In Ann. Arch. Anth. VII, 1914, p. 50, C. F. Lehmann-Haupt suggests that the girdle of Rameses III (see ibid. V, pp. $84 \mathrm{ff} . ;$ A. J. A. XVII, p. 270) is a product of the old technique of weaving with cards, or small boards, known to the Germans as Brettchenweberei.

Egyptian Dances.-In R. Arch. XXIII, 1914, pp. 332-336 (5 figs.), Valentine Gross discusses ancient Egyptian representations of dancers, especially those found by M. Loret at Sakkarah (1897-1899). He finds that the movements are identical with some of those of the modern ballet.

The Origin of the Meroitic Alphabet.-In S. Bibl. Arch. XXXVI, 1914, pp. $177-180$, A. H. Sayce states that in the Graeco-Roman age the Ethiopians of Meroe and Napata made use of a peculiar demotic (or cursive) alphabet, derived from hieroglyphs which were also used to represent the same sounds. Almost all the hieroglyphs were of Egyptian origin, but only about half the number of alphabetic values attached to them was Egyptian. The alphabet which served as a model must have been written from right to left and have divided the words of a sentence one from the other by means of points. Among the alphabets known at the time in Africa there is only one which fulfils these conditions. This is the Aramaic. As early as the age of Isaiah, not only the Northern Sudan, but the far-distant Southern Sudan also had been visited by the Jews. The Aramaic alphabet was at the time the alphabet of the Jews, and it is probable that the Aramaic language was already their literary language in Egypt. Accordingly the Meroitic alphabet probably owes its origin to Jewish inspiration, perhaps as early as the age of Isaiah.

Bronze Currency in Egypt in Roman Times.-The currency of Egypt was distinct from that of the rest of the Roman empire until the monetary reform of Diocletian which probably took place in 296 A.D. The denominations of the bronze coins have hitherto remained undetermined. In Ann. Arch. Anth. VII, 1914, pp. 51-66, J. G. Milne shows that although they vary in diameter from 10 to 38 mm ., in the time of Hadrian they fall into five rough groups having approximately diameters of $14,19,24,29$ and 34 mm . If variants of one millimetre each way are included, most of the coins will be comprised in these groups. From the death of Nero to that of Antoninus Pius there were probably only five denominations, namely, the drachma, half-drachma, diobol, obol, and dichalcon. The three larger sizes were maintained under Marcus Aurelius and Commodus. Under Claudius, the three smaller sizes alone were used; and under Tiberius, apparently the obol and dichalcon only. As the bronze coinage was a token coinage, the pieces were not struck according to an exact standard, and as usual in such cases the weights of the lower values are proportionately greater than those of the higher. Under Augustus, the Romans seem to have made experiments when
it was decided to abandon the Ptolemaic system with its silver and copper standards, and these were not settled until the thirtieth year of his reign. The writer also discusses the discounts in the payment of taxes and shows that áprúpov $\dot{\rho} v \pi a \rho o ́ v$ means money that did not have its full nominal value. The word $\kappa^{\prime} \rho \mu a$ was used to designate small change.

The Graeco-Egyptian Portraits.-In R. Arch. XXIV, 1914, pp.32-53 (7 figs.), A. Reinach begins a discussion of the Graeco-Egyptian portraits, some 400 of which are in public and private possession in Europe and America. Their discovery and provenience are briefly described and discussed; then their nature and technique are treated. Most of them are painted on a panel much higher than it is wide. The most usual technique is distemper for the foundation and draperies, and wax for the nude parts. An important group is entirely in encaustic. Distemper is used exclusively for a dozen portraits painted on canvas and about ten painted on wood.

Protraits from Antinoë.-The ancient city of Antinoë, opposite Rodah, near Cairo, was the scene of French excavations from 1897 to 1907. Many tombs were opened, and great numbers of portraits and of more or less ruined garments and other textile fragments were found. They date from the second century A.D. and later. The excavations, the textiles, and the portraits are described, illustrated, and discussed in an interesting and beautiful book by E. Guimet. [E. Guimet, Les Portraits d'Antinoé au Musée Guimet. Annales du Musée Guimet, Bibliothèque d'Art,' tome cinquième. 40 pp .; $47 \mathrm{pls} ., 13$ of which are colored; 19 cuts in text. 4to. Paris, no date; Hachette \& Cie.]

## BABYLONIA AND ASSYRIA

A Sumerian Legend of the Flood and the Fall of Man.-In S. Bibl. Arch. XXXVI, 1914, pp. 188-198, S. Langdon reports upon a Sumerian tablet in the Nippur collection in the Museum of the University of Pennsylvania. The remnants of the first two columns apparently sing the heroic deeds of the mother-goddess and the events which took place in her city Opis. In column III we find ourselves in the midst of a dispute between Nintud (one of the titles of Ninharsag) and Enki, or Ea. Evidently Enki, the water-god, had decided to destroy men by a deluge. Nintud said to the king: "O my king, the deluge sweeps away, yea the deluge sweeps away." Whereupon, "His foot on the boat straightway he set, and two . . . guards he placed." Then Ea (Enki) sent waters which swept over the fields. "The waters of Ea possessed the fields." On the first day of the first month it began and on the ninth day of the ninth month there was a passing away of the waters. After a considerable break our tablet gives us the name of the king who survived the flood. He is called Tagtug "a gardener," whom Enki summons to his temple and to whom he reveals secrets. We have here with great probability the Sumerian original of the Hebrew. Noah. Although Tagtug appears as an immortal after the Deluge, yet he lost his incomparable gift by eating of a forbidden tree. The tablet tells us, immediately after the revelation of wisdom to Tagtug, of someone who took and ate, and was cursed with the curse of mortality. There is no escape from supposing that it is here the Sumerian Noah and not the first man who committed this great disobedience. The first lines preserved on this column read:-"( . . . the plant) AM-HARU he touched . . . he ate . . . the plant which wrought their
fate therein she came upon. Ninharsag in the name of Enki uttered a curse. Henceforth life until he dies let him not behold. The Annunnaki in the dust sat down (to weep)." Ibid. XXXVI, 1914, pp. 253-264 (2 pls.), S. Langdon reports that early in July the authorities of the Museum of the University of Pennsylvania succeeded in restoring the entire tablet. Only a few lines now fail us, and these are not vital to the interpretation. The composition, in regard to the scope of the theological problems involved, the vigour of its style, and its length compared with literary efforts before 2200 b.c., impresses one as an epic of first-rate importance. We have here the doctrines of the Nippur school concerning paradise, the loss of this primeval age of bliss, the origin of human misery attended by the loss of pre-diluvian longevity, and the means devised by the gods to comfort mankind is his sorrowful lot. The tablet as now completed consists of six columns of about 240 lines, most of which are intact. It begins with a description of the land of primeval bliss located on the island of Dilmun in the Persian Gulf. The forbidden plant was the cassia (see Museum Journal, V, 1914, pp. 141-144; fig.).

Historical Sumerian Texts.-Under the title Historical Texts (Philadelphia, 1914, University Museum. 242 pp. 4to.) Dr. Arno Poebel publishes with translation and commentary: 1. A Sumerian account of the creation of mankind and the deluge in which Ziugiddu, the tenth and last of the antediluvian kings, like Noah, builds a boat and escapes. The writer dates the tablet in the latter half of the dynasty of Babylon, and thinks that it, together with a list of kings (also published in this volume), formed part of a series giving a history of Babylonia from the beginning down to the time of the scribe. This is a different tablet from the one published by Professor Langdon (see above). 2. Four tablets giving new lists of kings. One (No. 2) dates from the fourth year of Enlil-bani, the eleventh king of Isin; and another (No. 4) from the reign of Damiq-ilisu, the sixteenth king of Isin. 3. A history of the Tummal of Ninlil at Nippur. 4. A fragmentary vase inscription which shows that En-šakušanna and Enbi-Istar were contemporaries. 5. A discussion of the events in the reign of Eannadu. 6. Inscriptions of kings of Agade in Sumerian and Akkadian, which among other things prove that there were many pieces of sculpture in the temple of Enlil at Nippur.

Historical and Grammatical Texts.-Under the title Historical and Grammatical Texts (Philadelphia, 1914, University Museum), D̀r. Arno Poebel has published a volume of 125 plates, of which 85 are autograph plates'and 40. photographic reproductions of tablets in the Museum of the University of Pennsylvania.

Grammatical Texts.-In Grammatical Texts (Philadelphia, 1914, University Museum. 122 pp. 4to), Dr. Arno Poebel has published a treatise on Sumerian grammar. He discusses the noun-governed complexes, the personal pronoun (giving paradigms of the demonstrative and of some of the personal pronouns) and the Sumerian verb system also with paradigms. The work is based on tablets with grammatical texts from Nippur in the Museum of the University of Pennsylvania.

Legal and Administrative Documents from Nippur.-Dr. Edward Chiera has published a volume of 102 tablets from Nippur dating from the dynasties of Isin and Larsa and concerned with legal and administrative matters. With
the exception of two, they are written in the Sumerian language, and comprise all the tablets of the dynasty of Isin in the Museum of the University of Pennsylvania. All the tablets are published in facsimile, besides twelve photographic reproductions, and twenty-six are transliterated and translated. The author gives a list of the personal names, and discusses the date of the capture of Isin by Rim-Sin, and the date formulae of the dynasties of Isin and Larsa. [Legal and Administrative Documents from Nippur, chiefly from the Dynasties of Isin and Larsa. By Edward Chiera. Philadelphia, 1914, University Museum. 110 pp .; 61 pls. 4to.]

Sumerian Amulets.-In Or. Lit. XVII, 1914, cols. 304-308 (4 figs), E. F. Weidner describes four old Babylonian tablets shaped like disks with spikes on the back that were evidently intended to stick into the wall of a house. These are inscribed with magical formulae designed to ward off evil spirits and contain the earliest specimens of magical literature that have come down to us. They belong to the time of the Dynasty of Ur about 2400 в.c.
Provision for the Court of a Viceroy of Umma.-In J. Asiat., Series XI, III, 1914, pp. 620-636, G. Contenau publishes a large tablet from Jokha (the ancient Umma) which contains a list of articles of food provided for the court of the patesi, or tributary king, of Umma. The tablet is dated in the reign of Dungi, king of Ur, and gives an interesting glimpse into the domestic economy of a petty king of the period about 2500 в.с.
Tablets from Erech.-In Exp. Times, XXV, 1914, pp. 420-423, T. G. Pinches describes thirty tablets in the possession of Mr. W. Harding Smith. They are mostly of the nature of trade-documents, but give information concerning the worship and the persons dwelling in Erech during the reigns (Nabopolassar-Seleucidae) to which the tablets refer. Among the more interesting of the trade-documents is the text referring, apparently, to the sale of a necklace, or collarette. The tablet is dated in the month Sebat of the nineteenth year of Nabopolassar. The latest one is dated the second of Tammuz in the 162nd year, Alexander (Aliksandar) being king. The gap between the two periods represented by these tablets is about 350 years, and many changes, both political and religious, had taken place in Babylonia between the time of Darius Hystaspis and Alexander Balas, the most important for the country being the practical abandonment of the old capital, Babylon. During the Seleucid era, it is the deities of the city-Istar, Nanâ, and more especially Anu, the god of the heavens-whose names are met with, compounded with those of the inhabitants. The seal-impressions generally show Greek designs-female figures resembling Venus, cupids, lions eating their prey, etc., and one of the former, exceptionally, was engraved on a tiny cylinder horizontally.
The Religion of the Oldest Babylonian Inscriptions.-In Mitt. Vorderas. Ges. XIX, 1914, pp. 1-184 W. Förtsce undertakes to exhibit, first, the pairs, families, and groups in which the gods are arranged in the inscriptions of the earliest Babylonian kings, and to explain the reason for these groupings, which are much older than the arrangements in the official lists and throw light upon the origin of the various divinities. The second part of the treatise includes sacrificial lists from the time of Lugalanda and Urukagina. Here also the order in which the gods are arranged in the lists has historical significance.

A Description of the Chief Temple of Babylon and its Tower.-In Mémoires de l'Académie des Inscriptions, XXXIX, 1913, pp. 289 ff., P. Scheil reports the recovery of a tablet that has been lost since the death of George Smith in 1876. This contains exact specifications in regard to the Great Temple of Babylon and its seven-staged tower. Smith had already divined the contents of this tablet, but the progress of Assyriology has now made a more accurate translation possible, although it still presents difficulties (see also F. H. Weissbach in Or. Lit. XVII, 1914, cols. 193-201).

Gold and Silver in Old Babylonian Times.-In Or. Lit. XVII, 1914, cols. 241-245, A. Poebel describes a tablet from the time of the dynasty of Ur which states that red metal, that is gold, is worth fifteen times the same weight of silver. Another tablet of the time of the dynasty of Agade gives the ratio as $8: 1$, and in a tablet of the time of Hammurabi the ratio is 3:1. Poebel holds that the $15: 1$ ratio is normal and that in the other cases the gold is alloyed.

A New Date for Ancient Assyrian History.-In Mitt. Or. Ges. 1914, No. 54, W. Andrae reports the discovery of an inscription of Tukulti-Ninib in which he states that Ilu-shumma reigned 780 years before his time. This would fix the date of Ilu-shumma as about 2034 b.c. (see also F. E. Peiser in Or. Lit. XVII, 1914, col. 308-310).

The Beginning of the Broken Prism of Essarhaddon.-In Or. Lit. XVII, 1914, cols. 344-346, B. Meissner shows how the beginning of the broken prism of Essarhaddon, which narrated the assassination of Senacherib and the overthrow of his two older sons, the murderers, by Essarhaddon, may be restored from a number of recently published fragments.

The Chronology of Asurbânipal's Reign.-In S. Bibl. Arch. XXXVI, 1914, pp. 181-187, C. H. W. Johns shows that in the legal documents published by him in Assyrian Deeds and Documents, a particular Eponym is close in time to another particular Eponym, because the documents dated in their Eponymies show many names in common, and further that one of those Eponyms is later than the other because the persons named in both have been promoted to higher offices in its records; and so, on the whole, we may provisionally arrange groups of Eponyms in their probable chronological order. Recently quite a number of tablets have been found written in this period and furnishing the names of some Eponyms not previously known from the Kouyunjik collections. We may fairly assume that we now know all the Eponyms after 648 b.c., that the custom of dating by Eponymies ceased with the fall of Nineveh, and that that event took place in 606 b.c.

The Names of Ancient Babylonian Cereals.-In Sitz. Kais. Akad. der Wiss. in Wien, Phil.-Hist. Klasse, 173, 1 (Wien, 1914, Holder. 216 pp.), F. Hrozný discusses the different kinds of cereals used in ancient Babylonia with their names in cuneiform. On pp. 181-194 (2 pls.) F. v. Frimmel tries to identify certain specimens found in the excavations of Nippur and Gezer. The varieties of grain he has not yet made out; but he has identified certain species of vetch, the Vicia Sativa, or the Vicia Ervilia, and the Vicia Palaestina.

## SYRIA AND PALESTINE

The Temple of Solomon.-In The Temple of Solomon (Chicago, 1910, Open Court Publishing Company. 69 pp.; 28 figs.), P. E. Osgood discusses Solomon's temple at Jerusalem and the way in which it should be restored.

Figures of Fortune on Camel-back.-In R. Hist. Rel. LXIX, 1914, pp. 1-11 (pl.), F. Cumont publishes a peculiar terra-cotta said to have come from Damascus. Two female figures, richly dressed and wearing high, turreted crowns are seated upon a camel. He thinks they represent the two halfstatues of Tyche as they were carried in the processions of some temple in the vicinity of Damascus or Palmyra. Heliodorus speaks of $\tau \dot{u}$ xac; and in Syriac the plural Gadê was used for the good fortune of the planets Jupiter and Venus. The two figures are, therefore, to be explained in some such way. A somewhat similar terra-cotta from Syria recently acquired by the Louvre represents two female figures (one playing a flute) riding on a camel, but they are clearly not divinities.

Ancient Hebrew Weights and Measures.-In Klio, XIV, 1914, pp. 345376, C. F. Lehmann-Haupt discusses Hebrew weights and measures and shows that they correspond with those of the Pheidonian system. He also discusses the royal as contrasted with the ordinary mina.

The Princeton Expedition to Syria.-In Division II, Section B, Part 5 of the Publications of the Princeton University Archaeological Expedition to Syria in 1904-1905 and 1909 (Leyden, 1914, E. J. Brill. Pp. 211-260; pls. 20-22; figs. 218-278), Professor Howard Crosby Butler publishes the remains of ancient architecture in the Djebel Halakah. The ruins described are at Ḳaṣr il-Benât, Kfellūsîn, Serdjibleh, Kefr Hauwâr, Burdaklī, Srîr, Tell 'Aikbrin, Dera'mân, Kfêr, Tell 'Adeh, Burdj is-Seb', Dêr Tell 'Adeh, Zerzîtà, Kātûrā, Fidreh, Refâdeh, and Sitt ir-Rûm. In Division III (pp. 135-168; 6 figs.), Professor William Kelly Prentice publishes fifty inscriptions from the same district: One is bilingual, Greek and Latin; the others are Greek.

## ASIA MINOR

The Hittites.-In Exp. Times, XXVI, 1914, pp. 25-26, A. H. Sayce states that instead of one Hittite empire with its capital at Boghazkeui, north of the Halys, there were two empires, the second of which rose on the ruins of the first. This second empire was the Cilician empire of Solinus, which was founded by the Moschians-not by the Hittites proper-about 1200 b.c., and had its main centre at Tyana. It is to this second empire that the hieroglyphic inscriptions belong which testify to its spread from Lydia in the west to Carchemish in the east, and in which Sandes or Sandakos appears as the national god in place of Tesub. Most of the monuments, accordingly, which we have regarded as evidence of the existence of the earlier empire really bear witness, not to the Hittites of Boghazkeui, but to the Moschian Hittites of Tyana.

Dionysus at Smyrna.-In B.S.A. XIX, Session of 1912-1913, pp. 89-94 (fig.), Margaret Hasluck shows that Dionysus Briseus was a bearded Dionysus, who came to Smyrna from Lesbos. A seal in the British Museum, with the inscription M $\nu \sigma \tau \hat{\omega} \nu \pi \rho \delta \dot{\delta} \pi \dot{\delta} \lambda \epsilon \omega s$ B $\rho \epsilon \epsilon \sigma \epsilon \omega \nu$, shows the identity of

Dionysus Briseus with Dionysus $\pi \rho \rho \dot{\alpha} \pi \dot{\lambda} \lambda \epsilon \omega \mathrm{s}$. His temple was outside the wall, not far from the stadium, which was inside.

The Priests of Helios at Rhodes.-In Klio XIV, 1914, pp. 388-389, F. Hiller v. Gaertringen calls attention to a number of new names of the priests of Helios on the island of Rhodes.

## GREECE

## SCULPTURE

The Sculptures and the Restoration of the Temple at Assos.-In R. Arch. XXIII, 1914, pp. 381-412 (11 figs.), F. Sartiadx continues (see A.J.A. XVIII, 1914, pp. 210 and 514) his discussion of the temple at Assos. The arrangements of the blocks of the frieze proposed by Clarke, Collignon, and Itier are discussed and shown to be faulty. The metopes must have been placed in the two façades. A list of the various dates proposed for the temple, with bibliography, is given. The tentative nature of the construction shows that the building is early, but the knowledge of building methods, as shown by the cuttings in the stones, the masons' marks, and the dowelling, proves that the date cannot be earlier than 550. The plan and proportions point to the same conclusion. The temple dates, then, from the second half of the sixth century, before the Persian conquest.
The Sculptures of the Later Temple of Artemis at Ephesus.-A second article on the sculptured drums and pedestals of the fourth-century Artemisium (see J.H.S. XXXIII, pp. 87 ff; A.J.A. 1913, p. 541), by W. R. Lethaby, is published in J.H.S. XXXIV, 1914 (pp. 76-88; pl.; 10 figs.). From the existing small fragments of the reliefs, he makes conjectural reconstructions of various scenes in the Heracles and Theseus myths and groups of sacrificial animals led by Victories, as on the Nike balustrade, both for the sides of the square pedestals and for the column drums, and he relates the best preserved of the drums. the Alcestis relief in the British Museum, to the Heracles series. He ventures the opinion that we have at Ephesus the work of Scopas assisted by his pupils in the same sense that we have in the Parthenon the work of Phidias and his assistants, with at least a possibility that the beautiful Alcestis relief is from the hand of the master himself. The dado effect of these sculptured bases, which were probably used on the antae as well as on the detached supports, is an oriental feature, found in porticoes atid halls in Assyria and at Mycenae, as well as in the earlier Artemisium. The pediment had no sculptures. There were probably here, as at Samos, nine columns in each row across the western or rear end, in place of the eight columns with wide central intercolumniation of the east front. The peristyle was probably roofed with wood, the famous cedar ceiling of the temple.
The Boston Triple Relief Again.-In J.H.S. XXXIV, 1914, pp. 66-75 (2 figs.), R. Norton refutes in some detail E. A. Gardner's criticism of the Boston "throne" (ibid. XXXIII, pp. 73 ff. and 360; A.J.A. 1913, p. 540), showing both that Professor Gardner's observations of facts are faulty, being made from photographs and not from the marble, and that his reasoning is ill-considered, since the characteristics which he claims are inconsistent with a fifth century origin do actually occur in undoubted fifth-century works,
and are quite inconsistent with his theory of a modern or neo-Attic imitation of the antique. Thus, although the two "thrones," that in Rome and that in Boston, are so unlike anything else as to be beyond our present understanding, both in subject and in purpose, yet they are clearly pendants one of the other, though by different artists, and as clearly, are both works of the fifth century, b.c.
The Discobolus of Myron.-A marble fragment in the Kunstmuseum at Bonn, consisting of a pair of hands holding a discus, evidently belonged to a statue in the attitude of Myron's Discobolus and of the Ludovisi discobolus herm. These hands show that at this point of the action the fingers of the right hand were spread apart and touched the rim of the discus with their tips only. The work appears to be of the time of Myron and shows a marked tendency to naturalism. (B. Schroeder, Arch. Anz. 1914, cols. 96-97.)
The Holkham Head and the Parthenon Pediment.-In J.H.S. XXXIV, 1914, pp. 122-125 (2 figs.), G. Dickens severely criticises Sir Charles Waldstein's claim (J.H.S. XXXIII, pp. 276 ff ; A.J.A. 1914, p. 214) that a colossal head at Holkham Hall is probably Phidian and quite possibly the actual head of Aphrodite from the East Pediment. Besides the lack of evidence from provenance and material, he finds the style absolutely inconsistent with this view, and calls the head an archaistic work of the Graeco-Roman school, as late as the Antonines. It is only the mask of a head, and belonged to the statue of a veiled goddess, Hera or Demeter, in which the veil was probably done in stucco. Such masks were not uncomamon, where it was necessary to be sparing of the finer marble, the draperies being sometimes carried out in wood or an inferior stone.

A Statuette of Heracles in Boston.-In B. Mus. F. A. XII, 1914, pp. 44-45 (2 figs.), L. D. C(ASKEY) calls attention to a white marble statuette of Heracles nearly two feet high recently acquired by the Museum of Fine Arts in Boston. The hero is nude and stands with drooping head, his right hand resting on his club and the lion's skin hanging over his left arm. Except for the left forearm and part of the base, the figure is uninjured. The body is heavy and the head small. The writer thinks it a copy of a statuette, perhaps by Myron, made in the time of Hadrian. The figure is published in the Brunn-Bruckmann, Denkmäler Griechischer Skulptur, pls. 569 and 570.

The Maiden of Antium.-The well-known statue from Antium of a maiden in the act of offering is considered by A. Preyss in Röm. Mitt. XXIX, 1914, pp. 12-37 (pl.; 18 figs.) in connection with a torso found on the bank of the Ilissus. He thinks it possible that the Maiden of Antium was originally designed for the adornment of a tomb.
Portraits of Aristippus.-A Greek bronze statuette in the British Museum, acquired in 1865, represents a seated, elderly man, with close-cut hair and beard, wearing a himation and sandal-shoes, and with no attribute. The head is turned to the left and supported by the right hand. The most characteristic feature of the pose is in the left forearm, which lies across the lap wrapped in the cloak, and supports the right elbow-a feature that appears in three other statuettes, one in the Vatican, one in the Museo Barrocco, and one which was formerly in Dresden, but has now disappeared. These are all evidently derived from an original portrait statue of some philosopher, dating from early Hellenistic times. The life-size statue called Aristotle, in the

Palazzo Spada, to which a later portrait head has been adjusted, is a copy of an original similar to that of the statuettes but not identical in position, and probably a little earlier. They may both with some confidence be called portraits of Aristippus, the founder of the Cyrenaic school of philosophers. The head of the British Museum figure, the only one of the five that is preserved, serves to identify as Aristippus also the fine marble head in the Uffizi, called Alcibiades, and a gem published by Faber and by Visconti, but now lost. The British Museum paste gem inscribed API $\Sigma I \Pi \Pi Y 乏$ is probably a Renaissance forgery. (K. A. Esdaile. J.H.S. XXXIV, 1914, pp. 47-59; 6 pls.; 2 figs.).

The Jupiter Orador at Madrid.-In Jb. Arch. I. XXIX, 1914, pp. 121-122, G. Dehn discusses the position of the legs and the character of the support in the Thracian coin-type cited as evidence for the Jupiter Orador at Madrid; and points out, on the evidence of the hair, that the work is not a true copy of a Greek original.

## VASES

The Pottery Called Minyan.-In J.H.S. XXXIV, 1914, pp. 126-156 (13 figs.), E. J. Forsdyke publishes an historical and technical study of the fine, polished, monochrome or bucchero ware which was first noticed by Schliemann at Orchomenus in 1881, and named by him Minyan. It is wheelmade, has a peculiar soapy surface, and occurs in red, yellow, and black, but is most abundant as well as most perfect technically, in a fine silver grey, imitating silver. The shapes, whether cups, bowls, or goblets, are metallic, and have a characteristic high-swung, vertical handle, from which the classical cantharus was derived. From the distribution and stratification of this ware on the mainland of Greece and on the Aegean islands, occurring not at all in Crete, and from the fact that Hissarlik, where it occurs most abundantly, is the only site on which preliminary stages of development from primitive neolithic ware are found, the writer concludes that it was made at Troy and exported from there in pre-Mycenaean times, and represents an Asiatic influence, competing with or distinctly hostile to the Minoan, to which it finally succumbed. There was evidently an Asiatic colony settled at Orchomenus for a long time, from which this ware was distributed to the nearer parts of Thessaly; and other such settlements were on the Aspis hill at Argos, in Aegina, Melos, and elsewhere. All these places produced local imitations, which are easily distinguished from the genuine importation. There was more or less interaction, especially in regard to shapes, between Minyan and Mycenaean, as well as between Minyan and metallic vases, but the bucchero art was distinctly Eastern, as compared with the Greek taste and skill in painted decoration. The bucchero of classical times was probably made chiefly at Lesbos, and the black enamelled imitation known as "Aeolic," at Rhodes.

Geometric Pottery at Delphi.-In B.S.A. XIX, Session of 1912-1913, pp. 61-69 (fig.), M. L. W. Laistner describes geometric pottery from Delphi, which has improperly been called Proto-Corinthian. The shapes are few, practically only four: craters of medium size, two-handled bowls or scyphi, jugs (with trefoil lip or with a round lip that has a flattened edge), and amphorae (two fragments). One fragment of a pyxis also exists. The decorative scheme is to cover the body of the vase with a series of narrow horizontal bands.

The details of the maeander, the zigzags, hatchings, spirals, stars, lozenges, etc., are described. Human and animal forms also occur. This style is not original, as most of its elements occur elsewhere, but it is local, and its products were to some extent exported. It is most nearly related to the Attic style, as both lack a slip and there is a close resemblance in the human and animal figures and in the linear ornaments.

A Cylix at Oxford Signed by Brygos.-In J.H.S. XXXIV, 1914, pp. 106113 (pl.; 2 figs.), M. A. B. Herford publishes and discusses a fragmentary vase which is signed on the handle by Brygos, but has more in common with the work known as that of Cleophrades than that which goes under the name of Brygos. It may be assigned to some advanced member of his school. The subjects of the exterior are: A, Greeks arming, and B, Combat of Greeks and Persians, in which a large, oblong, wicker shield is conspicuous. The circular picture on the inside shows the two warriors kneeling with drawn swords, on the alert, and looking intently in opposite directions. The reserved segment below them, most of which is broken away, is topped by an egg-and-dart moulding. The subject is uncertain, but it was evidently very definite in the mind of the painter.

The Master of the Stroganoff Nikoxenos Vase.-In B.S.A. XIX, Session of 1912-1913, pp. 229-247 ( 4 pls.; 10 figs.), J. D. Beazley identifies sixteen vases as the work of one master, the same who painted the vase with the inscription NIKOXSENOS KALOS. This master, whose work is rather poor (Mr. Beazley calls him a clown) was a pupil of the 'Eucharides master. His date is not earlier than that of Euthymides. Two vases are added to the list of the Eucharides master.

Athenian White Lecythi.-In 1907, Dr. Arthur Fairbanks published a volume on the Athenian white lecythi with outline drawing in glaze varnish. He now adds a companion volume Athenian Lekythoi with Outline Drawing in Matt Color on a White Ground, with an appendix containing additional vases with the outline in glaze varnish (University of Michigan Studies, Humanistic Series, Vol. VII. New York, 1914, The Macmillan Company. 275 pp.; 40 pls. 4to. $\$ 3.50$ ). He divides them into eight classes and describes 365 specimens besides 31 additional drawings in glaze outline. The characteristics of the different classes are fully discussed as well as the scenes represented.

A Catalogue of Greek and Italian Vases at Yale University.-In 1913 Yale University acquired a collection of ancient vases including among others specimens of the Mycenaean, Geometric, Rhodian, Corinthian and Boeotian styles, as well as black-figured and red-figured Attic ware, and Italian vases of various kinds. These have now been catalogued by Professor P. V. C. Baur. There are 676 entries. [Preliminary Catalogue of the Rebecca Darlington Stoddard Collection of Greek and Italian Vases, Memorial Hall, Yale University. By P. V. C. Baur. New Haven, 1914, Yale University. 59 pp. 8vo.]

The Myth of Actaeon.-E. Mercanti discusses the myth of Actaeon, particularly as shown on a vase in the Boston Museum of Fine Arts and on one in the Santangelo collection. (Neapolis, II, 1914, pp. 123-134.)

Scenes from Tragedy on Two South-Italian Vases.-A fourth-century Campanian or Lucanian bell crater, found at Baiae and now in the Museum
at Schwerin, and a slender polychrome amphora in the Hermitage Museum, have as their main decoration two related scenes, evidently stage scenes from some tragedy, which have not yet been interpreted. They are published by J. Maybaum in Jb. Arch. I. XXIX, 1914, pp. 92-97 (2 pls.; 2 figs.). The picture on the crater shows an old man with white hair and beard, seated as a suppliant on a blood-stained altar, before which lies the bleeding body of a young woman. A younger but still bearded man is seated on a stool opposite, in an attitude of sorrow. On the amphora, the dead girl lies behind the altar in such a way that only her head is seen; the man seated on the altar has dark hair and beard; and two figures are advancing to attack him, a youth holding a bare knife, and an old (white-haired) man with a staff of unusual shape, which he is driving against the side of the suppliant. These may possibly be two representations of the same event, or more probably, different parts of the same play.

## INSCRIPTIONS

An Eretrian Law.-In 'A $\quad$ X. 'E $\phi .1913$, pp. 210-214 ( 6 figs.), G. A. Papava. sileiou publishes an inscription discovered in 1912 in the garden of the villa of A. S. Georgiades, who supplies (ibid. pp. 214 f.; fig.) a diagram and notes on the place of finding and some observations on the walls and harbor of ancient Eretria. The inscription, inscribed boustrophedon upon six blocks of poros which once formed a stele or the post of a city gate, is probably the oldest inscription of Eretria that we have. Though very fragmentary, it seems to deal with judicial procedure. It may, perhaps, be Attic, dating from the time before the Persian Wars when Athens conquered Euboea.

The Legend of the Locrian Maidens.-In R. Hist. Rel. LXIX, 1914, pp. 12-53 A. Reinach discusses the inscription relating to the Locrian maidens, published by Wilhelm (Jh. Oest. Arch. I. XIV, 1911, pp. 163-256; see A.J.A. XVII, 1913, p. 547), and shows that the custom of sending them to Troy was a very old one interrupted from time to time but still in existence in the second century b.c. It probably came to an end with the capture of Ilium by Fimbria in 89 в.с. He argues that it really goes back to a primitive sacred marriage rite, and that Ajax and Cassandra were originally divinities.

The Year of the Archon Archippus (318/17 B.C.).-In 'A $\rho \chi$. 'E $\phi .1913$, pp. 109-116, K. Maltezos corrects his former explanation of an irregularity of dating in a decree of the year of Archippus (cf. ibid 1908, p. 285). The dating indicates an intercalated year, whereas $318 / 17$ must have been "ordinary." An examination of all the Attic inscriptions b.c. containing the expression $\mu \epsilon \tau^{\prime}$ eikádas shows an ambiguous usage, the days being sometimes counted from the twentieth forward, sometimes from the last day backward. The [éveı кal $\nu \dot{\nu}$ all of the decree in question was probably due to a mistake of the stone-
 ninth day from the end after the twentieth), which he wrongly interpreted as the twenty-ninth, the last day of the month, which was usually designated


An Attic Epigram:-In 'A $\boldsymbol{\prime}$. 'E $\phi .1913$, p. 233, B. L(eonardos) publishes revised readings of the Attic epigram I.G. II, 2081 (Athens, Epigraphical Museum, No. 5370).

Decree of Chremonides.-A new arrangement and restoration of the fragments of the decree of Chremonides (I.G. Vol. II-III, Ed. minor, Pars I,

Fasc. I, Nos. 686, 687), supported not only by the sense of the text but also, in large part, by actual contact surfaces of the stones, is presented by K. K. Smith in Cl. Phil., IX, 1914, pp. 225-234.

Attic Inscriptions.-In Cl. Phil. IX, 1914, pp. 417-441, A. C. Jounson publishes a series of notes on I.G., Vol. II-III, Ed. minor, Part I, Fasc. I, and discusses briefly the chronological limits of certain inscriptional formulae.

Inscriptions of Chalcis.-In 'A $\rho \chi$. 'E $\phi .1913$, pp. 215-217 (3 figs.), G. A. Papavasileiou publishes three stamps on amphora handles and four short sepulchral inscriptions, of which one, in Latin, marked the resting place of a Venetian councilor, Turinus Contarinus, who died March 15, 1346.

The Oath of the Cnidians.-In Berl. Phil. W., July 11, 1914, col. 894, A. Wilhelm shows that the second line of the inscription found at Chalcis recording the compact between the Romans and the Cnidians (see A. Jardé, Mélanges Cagnat, pp. 51 ff., and E. Täubler, Imperium Romanum, pp. 450 ff.)
 Julium at this time (soon after 30 в.c.) is interesting.

The Inscriptions of Delphi and Mr. Pomtow.-In R. Arch. XXIII, 1914, pp. 413-424, Émile Bourguet writes severely of the errors committed by Mr. Pomtow in his writings on Delphian inscriptions, errors which are not confined to the field of epigraphy, but extend to other fields, such as accuracy of statement, propriety of expression, and respect for the property of others.

Notes on Delian Inscriptions.-In R. Ét. Gr. XXVII, 1914, pp. 138-143, M. Lacroix and G. Glotz publish notes on fourteen Deliar inscriptions.

Notes on Inscriptions of Epidaurus.-In 'A $\rho \chi$.' $\mathbf{E} \phi$. 1913, pp. 125-129 (8 figs.), Ch. A. Giamalides publishes corrections and additions to over twenty inscriptions of Epidaurus, I.G. IV, 946 A. ff. He finds that 1389, 1435, 1458, 1430 , and a new fragment all belong to a pedestal which supported honorary statues of Sodamus, son of Damophanes, and of his son Nicatas.

Notes on Thessalian Inscriptions.-In 'A $\rho$. ${ }^{\text {'E }} \boldsymbol{\text { ' }}$. 1913, pp. 143-182 (31 figs.), also pp. 232 and 237, A. S. Arvanitopoullos publishes supplementary notes and corrections to published inscriptions of Thessaly, chiefly from Hestiaeotis (I.G. IX $^{2}, 332-355$ ) and Perrhaebia (I.G. IX ${ }^{2}$, 1268-1317 and B.C.H. 1911, pp. 239 ff., Nos. 8, 9, 10, 11). Most of these inscriptions were published by Kern under less favorable conditions. The removal of many of the stones from the walls into which they had been built has not only made possible more accurate readings, but also frequently disclosed inscriptions hitherto hidden. In 'A $\rho \chi$. 'E $\phi .1913$, pp. 217-220 (3 figs.), N. I. Giannopoulos publishes ten inscriptions from Thessaly. Of these two are votive inscriptions from Pherae, to Zeus Thaulios and to Zeus Aphrios, respectively. Ibid. 1913, pp. 232 f., G. K. Gardikas offers numerous Greek words of similar formation to the new word i $\delta\llcorner\circ \xi \in \nu 0 \delta$ ókot found in Thessalian inscriptions by Arvanitopoullos (cf. ibid. 1913, p. 165).

Inscriptions of Lesbos.-In 'A $\rho \chi$. 'E $\phi .1913$, pp. 220-224 (6 figs.), P. N. Papageorgiou publishes a bibliography of Lesbian inscriptions published since his Supplement (1900) to I.G. XII², and also nine new ones, among which is an interesting epitaph in elegiac metre in honor of a priestess, apparently in a sanctuary of Aeacus. The published inscriptions of Lesbos now total 682. Ibid., pp. 225-228 (fig.), the same writer publishes supplementary notes and corrections to twenty-four inscriptions of Lesbos, most of which are in I.G. XII².

Inscriptions from Lycia.-Fifty inscriptions of Roman date, which were copied in Lycia in the spring of 1911, are published by H. A. Ormerod and E. S. G. Robinson, in J.H.S. XXXIV, 1914, pp. 1-35. They are chiefly epitaphs, with a few dedications to divinities, honorary decrees for athletes, etc. One, from the architrave of a rock tomb, is in the native language; the others are Greek. An index of 146 proper names is appended.

Miscellaneous Inscriptions.-In Sitz. Kais. Akad. der Wiss. in Wien, Phil.-Hist. Klasse, 175, 1 (Wien, 1913, Holder. 55 pp.; 4 pls.) A. Wilhelm restores or comments on the following inscriptions: 1. No. 933 in Dittenberger's Sylloge, on the distribution of land on Issa to settlers from Corcyra. Melaina; 2. An inscription from Salona, probably a decree of the Roman Senate; 3. The oracle of Mnasistratus (B.C.H. XXXIII, pp. 175 ff.); 4. A Spartan inscription recorded by Leake (Travels in the Morea, III, No. 6); 5. A Delian decree (B.C.H. XXXIII, p. 473); 6. An epitaph from Melos (Ath. Mitt. XIX, p. 141, No. 2), grave inscriptions from Acarnania, and dedicatory inscriptions from Amörgos, all in Athens; 7. The word rasoфu入ákıo in an inscription from Miletus (Abh. Berl. Akad. 1908, Anhang, pp. 35 ff .); 8. An inscription from Alinda (B.C.H. XVIII, p. 39); 9. The letters ETEPSNO $\Sigma$ on a bronze tablet in Berlin indicate that something has fallen
 from Thyssanus with an inscription of the third century b.c. ('E $\phi$. 'A $\rho \chi$. 1911, pp. 59 ff .) which was later turned around and used for a dedication to Domitian and Domitia.

Inscriptiones Graecae V, r.-A few corrections and suggestions on items in the new volume of the Corpus of Greek Inscriptions, comprising the Laconian and Messenian inscriptions, are made by M. N. Tod in J.H.S. XXXIV, 1914, pp. 60-63. Especially the monograms combined of $\Pi$ and $M$ should
 names. Also the $\epsilon \xi$ signifying a freedman is to be interpreted as the preposition, not as an abbreviation for $\bar{\epsilon} \xi \in \lambda \epsilon i \theta \epsilon \rho o s$. The name 'E $\nu \dot{\prime} \mu a \nu \tau o s$ might be


The Inscription of Amia.-In Not. Scav. X, 1914, p. 423, D. Comparetti offers a different reading of the Greek inscription in honor of Amia found at Grugua, Sardinia and published by Professor Halbherr in Not. Scav. 1913, pp. 89 f.

On an Inscription of Monastir.-In 'A $\rho \chi$. 'E $\phi .1913$, p. 228, P. N. Papageorgiou publishes a correction to an inscription of Monastir (Macedonia) published by Wace and Woodward, B.S.A. 1911-1912, p. 170.

## COINS

Greek Coins Acquired by the British Museum.-Twenty-seven coins from various parts of the Greek world are pictured and described by G. F. Hill in Num. C'hron. 1914, pp. 97-109 (2 pls.). He omits such coins, especially of Cyrenaica, as are likely to be published soon in the official catalogue. In commenting on the gift by the late Sir Robert Hamilton Lang of 394 small Cypriote coins, the remainder of a hoard discovered by him at Dali in 1869, Mr. Hill remarks that a study of the hoard leads to a correction of the date of the small one-sided ram's head obols of Salamis assigned in B.M.C., Cyprus,

Pl. IX, 7-9. They are not of the time of Euelthon, but considerably later, as well preserved specimens of them occur in this hoard, which dates from the latter half of the fifth century.

Ethnics on Greek Coins.-In Num. Chron. 1914, pp. 236-48, E. S. G. Robinson publishes an alphabetically arranged list of ethnics appearing on Greek coins. It is designed to supersede the now out-of-date list in Boutkowski's Petit Mionnet de Poche; but this present part is confined to genitives plural, other categories being reserved for a later occasion.

The Electrum Coins of Lampsacus.-In The Electrum Coinage of Lampsakos (New York, 1914, American Numismatic Society. 34 pp.; 2 pls.) Agnes Baldwin discusses the electrum coins of Lampsacus of which fourteen varieties and about forty specimens are known. She thinks that there was an early issue dating from the end of the sixth and beginning of the fifth century, and a later issue dating from about 450 в.c. The type is the same, a hippocamp on the obverse and an incuse square on the reverse, but it is more developed in the later coins. She thinks that Gardner and Jameson are right in assigning the coins with a small palmette above the hippocamp, and struck according to the Milesian standard, to the period of the Ionian revolt.

Greek Bronze Coins from Lycia and Pamphylia.-A list of some 185 coins, acquired in Lycia, Pamphylia and Pisidia in 1911, with descriptions of such as are not treated in the standard numismatic works, 44 in number, and photographic reproductions of 27, is given in J.H.S. XXXIV, 1914, pp. 36-46 (pl.), by E. S. G. Robinson. The greater number of coins are from the nearer parts of Asia Minor, but scattered specimens belong to Thrace, Lesbos, Syria, Phoenicia, and Alexandria.

Syracusan Coin-Engravers.-In R. Ital. Num., XXVII, 1914, pp. 147-168 (pl. and 2 cuts), A. Sambon concludes his study of the Syracusan coin-engravers of the fifth and early fourth centuries b.c., discussing the work of Cimon and his anonymous successors, of Parmenius, and of Euaenetus. The wellknown decadrachm of the Jameson collection (from the hoard of S. Maria di Licodia), of which he gives an illustration, he agrees with Evans and Hill in attributing to an unknown artist, who, he thinks, may be the $\sum \Omega \ldots$, a collaborator of Cimon, who signed the type of the front-facing Arethusa, of which M. Sambon also supplies a picture in his plate. Farrer attributed the coin to Euaenetus; but it exhibits a difference of both type and artistic sentiment from the work of that artist.

## GENERAL AND MISCELLANEOUS

Cyclopean Altars at Mycenae.-In 'A $\rho$. ' $\mathrm{E} \phi .1913$, pp. 229-230, G. Mrstriotes advances the view that Euripides (Iph. Aul. 150) in making Agamem-
 contemporary designation for the ruined city, which arose from the nature of its most conspicuous remains.

The Omphalos at Delphi.-In C. R. Acad. Insc. 1914, pp. 257-270 (3 figs.), F. Courby points out that the omphalos seen by Pausanias outside the temple of Apollo at Delphi was a copy intended for public view, while the real omphalos, as inscriptions and other literary evidence prove, was within the temple. It was kept in the adyton which he locates within the temple, on the south
side, 3.96 m . from the west end. In 1913, he found within this enclosure, which is 6.20 m . wide, a poros omphalos (Fig. 1), 0.275 m . high and 0.38 m . in diameter with an iron spike in the top. On the side are three letters, an $E$ on its side and the word $\Gamma \hat{a}$. This omphalos evidently dates from the seventh century в.c. and was probably the sacred relic of the temple.
The Delphian Archons.-In Klio, XIV, 1914, pp. 265-320, H. Pompow publishes a list of the Delphian archons from 302 to 202 b.c. adding twelve new names. The evidence for them is presented in full.
The Nineteen-Year Cycle at Athens.-In connection with his investigation to determine the date of the official adoption of the Metonic cycle in the political calendar of Athens (cf. 'Apx. 'Ep. 1908, pp. 143-150 and 284-314), K. Maltezos ('Apx. 'E $\phi .1913$, pp. 117-124) examines the evidence relative to intercalation for the years in regard to which his scheme of the cycle involves a difference in the matter of intercalation from that of Ferguson ( $C l$. Phil. 1908) or that of Sundwall (Zur Frage von dem neunzehnjährigen Schaltcyklus in Athen, 1909-10). In support of his own scheme he finds that the years $325 / 4,307 / 6$, and probably $328 / 7$ were intercalated; $324 / 3,318 / 7$, and $313 / 2$ were "ordinary;" while for $327 / 6,311 / 0$, $309 / 8,308 / 7$, and $305 / 4$ the evidence is either lacking or insufficient.
The Stade as a Measure in Herodotus.-In Klio XIV, 1914, pp. 338-344, F. Westberg examines various distances given by Herodotus and concludes that he used three different kinds of stade: 1. The Babylonian-Persian stade of about 198.39 m ., or $7 \frac{1}{2}$ to the


Figure 1.-Omphalos; Delphi Roman mile; 2. The stade of about 148.85 m . or 10 to the Roman mile; and 3 . The stade of about 178.2 m . based on the Attic-Roman foot.
The Sacrifice of Tyndareus.-Pausanias (III, 20, 9) tells of a mound which he saw near Sparta known as the $i \pi \pi o v ~ \mu \nu \hat{\eta} \mu a$, and that it was so called because here was buried a horse which Tyndareus had sacrificed when he made the suitors of Helen swear that they would protect her. In R. Hist. Rel. LXVIII, 1913, pp. 133-145, S. Reinach argues that Tyndareus was a horse god; that the Dioscuri were horse divinities; that at the place mentioned by Pausanias a divine horse had been kept; that in exceptional cases the horse was sacrificed; that from the sacrificed animal Tyndareus became the sacrificer; that the mound was the place where divine horses had regularly been sacrificed.
Mumming Plays.-In B.S.A. XIX, Session of 1912-1913, pp. 248-265 (6 figs.), A. J. B. Wace describes mumming plays in northern Greece, Macedonia, and Thrace. Apparently they were all once features of a winter festival, though in many places they are now performed in the spring. They are by no means confined to the Greek population.

The Double Flutes.-In J.H.S. XXXIV, 1914, pp. 89-105 (tables; 8 cuts), J. Curtis publishes a study of the mechanism and use of the double flutes of the ancients, based largely on experiments made with models of the instruments that have been preserved in Naples, London, and elsewhere, and differing in some important matters from the statements of Howard (Harv. Stud. in Class. Phil. IV, pp. 52 ff .) and others. None of the ancient mouthpieces have survived and the pictures show only their outward form, in which the two flutes are alike. The writer's conclusions are somewhat as follows: In earlier times, when the two pipes were held at a wide angle, they were made on the same principle, blown like an oboe, with a reed inside of the bulbshaped mouth-end; and by a difference in the placing of the holes and perhaps in the size of the tubes, were made to play different parts of a single octave. During the period of great musical progress, $500-450$ в.c., when the range of the singer's tones was extended, the number of holes was increased and the flutes were held parallel, so that either one could be played by both hands and could alone cover a whole octave. Now by changing the size of the bore and the manner of blowing one of the flutes to the syrinx principle, that of the penny whistle, the flageolet, and the flue organ pipe, without changing its outward appearance, it was made to play an octave above the other and thus gave the full range of the Dorian, Phrygian and Lydian tropoi, with their different harmoniai. The two flutes were never sounded at the same time and the single tone was always in unison with the voice. The notation of the Greeks accurately represents the relative pitch of the different tropoi. Their lowest note was about a tone below modern $\mathbf{E}$. They recognized the difference between the major and minor tone, and hence could not have used the theoretical Pythagorean intonation.
Ancient Surgical Instruments.-A medical and surgical outfit, dating probably from the first or second century A.D. and including a balance, a glass beaker, a porphyry slab, and a box, besides three bronze cupping vessels and the instruments used in operations, was found in 1911 or 1912, near Colophon in Ionia, and is now the property of the Johns Hopkins University at Baltimore. The pieces, 36 in number, are described and illustrated by R. Caton, J.H.S. XXXIV, 1914, pp. 114-118 (3 pls., 2 figs.).

The Topography of Megara.-In B.S.A. XIX, Session of 1912-1913, pp. $70-81$ ( 4 figs.), S. CAsson reviews the arguments relating to the sites of Nisaea and Minoa. He concludes that the larger, eastern, hill of St. George is the site of Nisaea, and the smaller hill, to the west, that of Minoa.
Ianitsa.-In 'A $\rho \chi$. 'E $\phi .1913$, pp. 230 f., G. Mistriotes defends his explanation of the origin of the name Ianitsa, ibid., pp. 20 f., against the criticism
 when they conquered Macedonia, recognizing in the old capital Pella a peculiarly Greek city, made it their capital and named it "Iounanitsa," i.e. the city of the Iounan (Ionians), a name they still use for the Greek race.

## ITALY

## SCULPTURE

Roman Portraits in Copenhagen.-The Roman portrait sculptures in the Ny Carlsberg Glyptothek at Copenhagen are studied by F. Poulsen in Röm. Mitt. XXIX, 1914, pp. 38-70; 3 pls.; 19 figs. Of special interest is the portrait of Trajan.

The Marsyas of the Forum.-The much venerated statue of Marsyas in the Roman Forum has been recognized as of fourth century date. Furthermore it came to Rome between 200 and 170 b.c. In Klio, XIV, 1914, pp. 321-337, A. Reinach points out that in 188 Cn. Manlius Vulso camped for three days at Apamea in Phrygia which was the centre of the Marsyas cult, and argues that the statue was carried off to Rome from that place at that time. It is not unlikely that Manlius thought of Marsyas as a god connected with the early traditions of his race.

Antiquities from Lanuvium.-In B.S.R. VII, 1914, pp. 63-91 (17 figs.), A. M. Woodward describes and discusses fragments of sculpture derived from the excavations carried on in the years 1884-1890 at Civita Lavinia by the late Lord Savile. The fragments here described are 73 in all, seven of which are in the British Museum, the rest in the Museum of the Leeds Philosophical and Literary Society, at Leeds. They are the remains of six riders and seven horses, evidently a large equestrian group. The horses were prancing. The workmanship is Roman, the marble Italian. The second century A.D. is suggested as the probable date.

## VASES AND PAINTING

Italiote Vases with Figures of Marine Animals.-In R.Et. Gr. XXVII, 1914 pp. 144-152 (8 figs.), Morin-Jean discusses the Italiote vases with marine animals. In the Naples museum especially are amphorae and lutrophori upon which in a band separating an upper and a lower scene are various mollusks and other marine animals, drawn with great truth to nature. This type of decoration was first used about 350 в.c. and the finest examples of it date from the third period of Ruvo ( $350-300$ в.c.). The well-known plates decorated with fish belong chiefly to the next period ( $300-250$ в.c.), although carelessly drawn specimens date from the fifth period ( $250-200$ в.c.).

Chronology of Vases of Ruvo.-In Neapolis, II, 1914, pp.31-41, V. Macchioro defends his theory of the chronology of the vases of Ruvo and his arrangement of them in the Naples museum against the criticisms of Ducati (Rend. Acad. Linc. 1913, pp. 523 ff.).

Forgotten Roman Wall Paintings.-In B.S.R. VII, 1914, pp. 114-123 (5 pls.; plan), Mrs. Arthur Strong publishes colored drawings by Mr. F. G. Newton of paintings in ancient rooms on the Palatine. The rooms are: 1. A loggia which opens upon the extensive gallery known as the "Bridge of Caligula"; 2. A chamber immediately to the southeast of the so-called "Stadium" of the Palatine; 3. A room in a complex of chambers near or under the site of the baths of the Palace of Hadrian and Septimius Severus. In the first are two pictures, each containing a priestess and an attendant. In
the second the subject is a lararium. The vault of the third is decorated with three series of rectangular panels divided by decorative designs; in the panels are 'pastoral scenes. Further publications of a similar character are to follow. All these pictures are virtually unknown.
Drawings of Ancient Paintings in English Collections.-In B.S.R. VII, 1914, pp. 1-62, Thomas Ashby publishes an illustrated catalogue, with discussion, of 386 drawings of ancient Roman paintings. These drawings are at Eton. The ancient paintings are, in part, lost, which adds to the importance of the drawings.

## INSCRIPTIONS

A Curious Epitaph.-A more accurate reprint of a curious and puzzling epitaph, previously known from Ephemeris Epigraphica, is published by H. Dessau in B. Com. Rom. XLI, 1913, pp. 149-153. It contains a Greek verse transliterated with blunders. Thus TVTOST, apparently for rồr' ${ }_{\varepsilon} \in \tau \tau \nu$, shows the Latin clision instead of the Greek. It is probably of the time of Augustus.
A Building Inscription.-Scanty fragments of a monumental inscription in the Roman Forum, from a building restored by Severus and Caracalla, are discussed by M. Bava in Röm. Mitt. XXIX, 1914, pp. 7-11 (2 figs.).
The Military Diploma of Lyons.-In R. Et. Anc. XVI, 1914, pp. 290-294 ( 2 pls .), P. Fabia and C. Germain de Montauzan publish the military diploma found at lyons in 1913. The two plaques are 13 cm . high and 10.5 cm . wide. They are almost complete and the small lacunae in the inscription can be restored with certainty. It is dated March 16, 192 a.D. and concerns a soldier of the Thirteenth Cohort Urbana stationed at Lyons.
Epigraphic Bulletin.-In their Reviue des Publications relatives à l'Antiquité romaine for January-June, 1914 (R. Arch. XXIII, 1914, pp. 453-504) R. Cagnat and M. Besnier give the text of 213 inscriptions ( 20 in Greek and the rest in Latin) and notes on epigraphic publications.

## COINS

Civil War Coinage of 68-69 A. D.-H. Mattingly deals exhaustively with the coinage issues of the period 68-69 a.d. in Num. Chron. 1914, pp. 110137 ( 2 pls.), discussing the later issues of Nero, the "Autonomous" series, the coins of Galba, Otho, and Vitellius, and the earliest of Vespasian, as to date and places of minting, and somewhat as to the historical meaning of types. The article is thus a numismatic companion to the history of the "year of the four emperors."

Quadrantes Assigned to Augustus.-L. Laffranchi, in an article printed in R. Ital. Num. 1911, pp. 319 ff ., argued that a somewhat puzzling series of quadrantes usually assigned to the reign of Augustus is rather to be attributed to the period $35-50$ a.d. His views are briefly combated by H. Mattingly, who would hold to the traditional attribution. (Num. Chron. 1914, pp. 261-264)

Contributions to the Corpus Numorum.-Under this title the veteran F. Gnecchi describes 197 more coins from his collections, ranging in date
from Julius Caesar to Andronicus IV, Palaeologus. (R. Ital. Num. XXVII, 1914, pp. 169-206; 3 pls.)

A Correction.-In a recent work by Professor Casagrandi (La Pistrice sui tetradrammi di catana e sul aureo della collezione Pennisi: Catania, 1914) the author caustically criticises G. F. Hill for the alleged offence of publishing in his Coins of Ancient Sicily (Pl. VIII, 7) a false illustration of the Pennisi coin. Mr. Hill points out that the coin he represented was not from the Pennisi collection at all, but from that of the British Museum, and that it was most accurately reproduced. (R.Ital. Num. XXVII, 1914, p. 269.)

## GENERAL AND MISCELLANEOUS

An Early Necropolis at Bologna.-In R. Arch. XXIII, 1914, pp. 321-331, A. Grenier discusses the early necropolis found in 1913 about 500 m . east of Bologna, outside of the gate of S. Vitale (G. Ghirardini, La necropoli antichissima scoperta a Bologna fuori Porta San Vitale, nota preliminare communicata alla Classe di Scienze Morali della R. Accademia delle Scienze dell' Instituto di Bologna . . . Bologna, 1913). He does not agree with Ghirardini's theory that the primitive settlement at Bologna consisted of several independent villages. This necropolis is the earliest found at Bologna, but it does not bridge the gap between the Terramare and the Villanova civilization. It does, however, show that the Villanova culture in the valley of the Po was as early as that in Tuscany. Perhaps those who brought it to Italy came from the north.

Stone Age Weapons from Populonia.-Stone age weapons from the vicinity of Populonia are discussed by A. Minto in B. Pal. It. XXXIX, 1913, pp. 85-91 (2 figs.).

Prehistoric Graves from Centuripe.-Prehistoric Sicilian graves at Centuripe are illustrated in B. Pal. It. XXXIX, 1913, pp. 92-98 (4 figs.) by P. Orsi.

An Archaic Tomb at Sardara.-In B. Pal. It. XXXIX, 1913, pp. 99-127 (3 pls.; 4 figs) A. Taramelli gives an elaborate account of an archaic tomb at Sardara, with a bronze statuette of the most primitive Sardinian art.

Oriental Influence on Early Italian Civilization.-The workings of preHellenic Oriental influences on the primitive Italians form the subject of a paper by G. Ghirardini in B. Pal. It. XXXIX, 1913, pp. 137-159.

Masons' Marks at Perugia.-Some notes on the walls of Perugia by C. Densmore Curtis appear in Röm. Mitt. XXIX, 1914, pp. 1-6 (fig.). He has made a special study of the masons' marks.

A Nymphaeum near Castel Gandolfo.-The results of excavations carried on as long ago as 1841, in a nymphaeum on the shore of the Lago Albano, below Castel Gandolfo, are published by G. Lugli in B. Com. Rom. XLI, 1913, pp. 89-148 (2 pls.; 9 figs.). This Ninfeo Bergantino is in a grotto, and is of the time of Domitian.

Paganica.-The identification of the village of Paganica in the valley of the Aterno with a place of the same name, and a study of the roads in this part of the country of the Vestini form the subject of a contribution to Röm. Mitt. XXIX, 1914, pp. 127-139 (fig.) by N. Persichetti.

The Site of the Temple of Apollo on the Palatine.-Further arguments in support of his theory of the site of the temple of Apollo (southwest portion of
the hill, the site assigned by Hülsen and others to Jupiter Victor) are advanced by G. Pinza in B. Com. Rom. XLI, 1913, pp. 199-224, (pl).

Seneca and the Golden House of Nero.-In C. R. Acad. Insc. 1914, pp. 231-242 (8 figs.), F. Préchac points out that the statement that Seneca does not mention the Golden House of Nero is incorrect. There are several allusions especially in Epistles 90 and 115. His reference to the palace of the Sun suggests that the colossal group in the vestibule represented Nero as Helios driving a four-horse chariot. Such a group is shown on later coins.

The Second Festival of Carmenta.-The question of the establishment of a second festival (Jan. 15) in honor of Carmenta, together with the conflicting theories and traditions on the subject, and the restoration of a lacuna in the Fasti Praenestini at this critical point, are discussed in an elabborate study by Maria Marchetti in B. Com. Rom. XLI, 1913, pp. 154-184. She thinks the second festival dates from Romulus, and that his name should be restored in the inscription.

Baalbek and Roman Art Under the Empire.-The architectural ornament of the temples and other buildings at Baalbek, very minutely studied and compared with related designs in architecture all over the area of the Roman Empire, east and west, is made the basis for a more definite dating of the history of Heliopolis than has hitherto been reached, and also for a fuller understanding of the differences in the development of Graeco-Roman art in the different parts of the Empire. Beside the main cleavage between East and West, corresponding closely to the division between the Greek and Latin languages, there were subordinate varieties, as those of Syria and Asia Minor, and all of these interacted upon one another to some extent, through the migration of artists and other causes. At Heliopolis, two building periods, each of some duration, can be recognized. The Great Temple of Zeus was begun in the early Augustan period, with the founding of the Colonia Julia Augusta Heliopolitana, in the form of late Hellenistic art which was then current in the city of Rome; but before its completion, sometime before the Flavian period, specifically eastern tendencies were manifest. A second period of activity, embodied in the Small Temple (temple of Bacchus), with the porticoes of the fore-court and the Round Temple, began in the latter part of Trajan's reign and extended to that of Antoninus Pius. Later in the second century the decline set in here, as elsewhere in the Roman world. The elements of this study are the Corinthian capital and the acanthus leaf in general, the egg-and-dart moulding, the Lesbian moulding, the shell-niche, the scrollfriezes, etc. Incidentally it is seen that the earlier influence in the palace of Diocletian at Spalato was from Asia Minor, not Syria. (E. Weigand, Jb. Arch. I. XXIX, 1914, pp. 37-92; 5 pls.; 42 figs.)

The Mosaic Portrait of Virgil.-In Atene e Roma, XVII, 1914, cols. 65-94, D. Comparetti discusses the mosaic portrait of Virgil found at Hadrumetum in North Africa in 1898. It is perfectly preserved and once formed the decoration of a tablinum, while two other mosaics probably representing Aeneas and Dido decorated the adjoining alae. The latter are badly injured. The poet is represented seated composing the Aeneid, while Clio and Melpomene stand on either side of him. On the book which Virgil is holding is line 8 of the Aeneid. There is nothing ideal about the poet's face. The mosaic is clearly a portrait and dates from the end of the first century a.d. The
writer believes that Martin's identification of certain heads as portraits of Virgil cannot stand; neither can his theory that the first seven lines of the Aeneid are a later addition. The mediaeval portraits of Virgil are all imaginary.

Mosaics in the House of the Faun at Pompeii.-In Neapolis, II, 1914, pp. 42-99, 135-152, the history of the themes of the mosaics in the House of the Fawn at Pompeii is discussed in detail by W. Leonhard, who also traces the development of mosaic art in general and concludes that although it was much practised at Alexandria yet its origin was Greek rather than Egyptian or Asiatic.

Identification of the Residents of Houses at Pompeii.-When on the walls of a house at Pompeii are found electoral notices in which, in addition to thename of the candidate, there appears the name of a citizen in the nominative or vocative (according as he seems to promise his support or is requested to do so), we may recognize in the citizen thus named the occupant of the house. This principle is laid down by M. Della Corte, in Neapolis, II, 1914, pp. 153201, tested by comparison with results obtained in other ways, and then used as a basis for a new and more elaborate list of occupants of houses in or about the year 79 .

Southern Italian Museums.-Recent improvements in the arrangement of the museum at Bari and the restoration of the museum at Reggio-Calabria are briefly described in Neapolis, II, 1914, pp. 120-121.

The Peace of Pozzuoli.-In R. Arch. XXIII, 1914, pp. 341-345, R. Sciama discusses the article by J. Carcopino (ibid. XXII, 1913, pp. 253 ff.; A.J.A. XVIII, 1914, p. 238) on the peace of Misenum, 39 в.с., and concludes that the evidence does not show that Octavius, Antony, and Sextus Pompey met on the island in the harbor of Pozzuoli (Dicaearchia).

The Labarum of Eusebius.-In Studi Romani, II, 1914, pp. 216-223, P. Franchi de' Cavalieri returns to his account of the labarum described by Eusebius (cf. Studi Romani II, 161 ff.). No account was taken of his article in the Relazione della Commissione a S.A.R. il conto di Caserta, and the text followed by the Commission was an inferior one (an Italian translation of the original).

Dillius Vocula.-In Studi Romani, II, 1914, pp. 153-188, P. Fabia has an account of the career of Dillius Vocula, commander of the twenty-second legion (Tac. Hist. IV, 24), offering valuable material for the interpretation of the Histories of Tacitus.

## SPAIN

Pre-Roman Remains at Cadiz.-In Boletin de la Sociedad Espagñola de Excursiones, XXII, 1914, pp. 81-107, Pelayo Quintero discusses the discoveries made from time to time in the pre-Roman necropolis at Cadiz, among which an anthropoid sarcophagus found in 1887, jewelry, amulets and other objects including several small heads are especially noteworthy. In 1912 some tombs were opened which contained skeletons.

Remains of the Cult of Mithra in Spain.-In R. Arch. XXIV, 1914, pp. 1-31 (13 figs.) Pierre Paris makes some additions to the list of inscriptions relating to the cult of Mithra in Spain, then describes and discusses the remains of the Mithraeum at Merida. A dedication of an ara genesis here dates from

155 A.D., and at this time the cult seems to have been most important. Various statues and reliefs were found, among them a Kronos with lion's head, a Kronos with human head (contemporaneous), a Venus pudica, a reclining Oceanus, and a seated Mercury. Further discoveries are possible.

## FRANCE

An Engraved Bronze at Rouen.-In R. Arch. XXIII, 1914, pp. 337-340 (3 figs.), E. Espérandieu publishes an engraved bronze at Rouen. It is probably the handle of a simpulum. Engraved upon it with a burin are: Mercury with a goat; a snake-footed being holding above his head a sort of arch of lines and dots; and seven or eight small representations of man, animals and monsters.

Pre-Roman Sites near Marseilles.-In R. Ét. Anc. XVI, 1914, pp. 329332 (fig.), H. de Gérin-Ricard records the location of fourteen ancient sites in the vicinity of Marseilles.

Decorated Pottery at Meudon, near Vannes.-In R. Arch. XXIV, 1914, pp. 67-93 ( 9 figs.), Comte de Lantivy and J. de la Martinière describe pottery found at three places about Meudon, near Vannes (Morbihan). The forms of the vases are simple, usually without foot. The decoration is pressed in with a roller and is of simple linear character. The date is unknown, but the decorations resemble those called Celtic.

An Ancient Road near Marseilles.-In R. Et. Anc. XVI, 1914, p. 333, H. de Gérin-Ricard reports that the ancient road which ran from Marseilles to Pourcieux, where it joined the Aurelian Way, may still be followed, especially between Terme de Peypin and Roquefeuil. It is from 4 to 6 m . wide, and its general direction from southeast to northwest. Remains of tombs, etc., are frequent along it.

Sculptures of Roman Gaul.-Commandant É. Esperandied continues his important publication of the sculptures of Roman Gaul with a fifth volume devoted to the reliefs, statues, and busts of ancient Belgium. He describes briefly the sculptures of Reims, Laon (including the district between the Aisne, the Oise and the Meuse), Soissons, Champlieu, Senlis, the temple in the forest of Halatte, Compiègne, Beauvais, Amiens, Arras, Saint-Quentin, Bou-logne-sur-Mer, Bavay, Brussels, Tongres (with Liège and Maëstricht), Arlon, Clausen, Luxembourg, Metz, and various sites in lower Lorraine. Nearly every piece described is accompanied by at least one illustration. [Recueil général des bas-reliefs, statues et bustes de la Gaule romaine. Par E. Espérandieu. V: Belgique, Pt. 1. Paris, 1913, Imprimerie Nationale. 502 pp.; 1318 figs. 4to.]

The Lycurgus Mosaic.-In R. Arch. XXIII, 1914, pp. 435-436, E. Bizot corrects some details of the description given by Waltz .(ibid. XXII, 1913, p. 292; cf. A.J.A. XVIII, 1914, p. 242) of the mosaic at Vienne with a representation of the punishment of Lycurgus. He lays great stress upon the effective composition of the mosaic.

The Musée Guimet at Lyons.-The Musée Guimet, founded at Lyons by M. Emile Guimet in 1879, was transferred to Paris in 1888. Since that time it has developed remarkably and has enriched other cities besides Paris (Toulouse, Bordęaux, Le Havre) with its treasures. Since 1910 a rich mu-
seum has again come into being at Lyons, formed by duplicates and loans from Paris and from numerous gifts, comprising objects of art from Egypt, Japan, Persia, India, Indo-China, and China. A guide has been prepared, which serves to give a good idea of the contents of this museum. The Egyptian, Japanese and Chinese departments are especially interesting. The guide contains chapters on the cult of the dead in Egypt and on the religions of India and Indo-China. [Guide illustré du Musée Guimet de Lyon. Chalon-surSaône, 1913, Imprimerie française et orientale E. Bertrand. 192 pp.; frontispiece, 9 pls.; 19 figs. 12mo.]

## GERMANY

Glazed Terra-cotta Vases in Berlin.-In Ber. Kunsts. XXXV, 1913-14, cols. 277-314 (16 figs.) R. ZAHN describes the collection of glazed terra-cotta vases in the Berlin museum. Most of them are low cups with decoration in relief, and they date from the first century b.c. to the first century a.D. The most interesting is a remarkable one-handled beaker, 15.5 cm . high (Fig. 2). It was made of a light red clay, except the reliefs which were of a lighter


Figure 2.-Glazed Cup from Pella
clay, and covered with a light green glaze. This gives to the body of the vase an olive brown color, and a light green color to the reliefs. The latter represent a skeleton, on either side of which dances a grotesque figure ( $\gamma \rho u \boldsymbol{u} \lambda \mathrm{\lambda os}$ ) in a pointed cap. To the left of the skeleton is the word KT $\omega$, and to the right $X P \omega$. The vase dates from the first century в.с.

## RUSSIA

The Figures on the Gold Comb from Solokha.-In Berl. Phil. W. October 10, 1914, cols. 1311-1312, O. Rossbach argues that the figures on the gold comb from Solokha (A.J.A. XVIII, pp. 408 ff.) represent Greeks from different colonies in Scythia fighting each other; while the figures on the quiver are two types of Scythians, the mounted figures being the nomad Scythians of Herodotus (IV, 20).

## NORTHERN AFRICA

Bas-Relief from Mactar.-In R. Arch. XXIII, 1914, p. 379 f. (fig.), Lours Chatelain describes and illustrates the relief found by him at Mactar in 19071908 (C.R. Acad. Insc. 1911, pp. 511 f.). In the middle is a vase; at the right a griffin, at the left a Triton, at the ends foliage and the like. The Triton terminates not in a fish-tail, but in the hinder part of a horse. An inscription gives the date, which corresponds to 170 A.D.

## EARLY CHRISTIAN, BYZANTINE, AND MEDIAEVAL ART

## GENERAL AND MISCELLANEOUS

Byzantine Churches in Attica.-In 'A $\rho$ X. 'E่ $\phi$. 1913, pp. 130-143 (12 figs.), A. Xrngopoulos describes two small Byzantine churches in Attica. 1. The ruined chapel of the Virgin (Panagia) near the cavalry barracks at Goudi resembles in plan the early Christian basilica; three parallel barrel-vaults each of which ends in an apse form a nave and two aisles. The east end with the apses is older, the rest of the building being a restoration of the fourteenth (?) century. An earlier structure of the fifth or sixth century, appears to have stood upon the same site. Most of the frescoes have been destroyed beyond recognition, but a presentation of Christ in the Temple can still be identified. 2. The Church of the Transfiguration, on the lower slope of the Acropolis, north of the Erechtheum, dates from the thirteenth or the fourteenth century. Four columns support the octagonal dome which caps the intersection of two barrel-vaults which form a cross upon the roof. A low, vaulted, double chamber of unknown use, opening from the south aisle, is cut out of the rock of the Acropolis.

The Church of Santa Sophia.-In J. B. Archit. XXI, 1914, pp. 573-584 ( 9 figs.) C. Gourlay gives a general account of the church of Santa Sophia at Constantinople commenting on its history, the changes introduced by the Turks, and its architectural beauties.

The Cloister of Theodosius at Jerusalem.-In Byz. Zeit. XXIII, 1914, pp. 167-216, E. Weigand describes the history and construction of the cloister of Theodosius at Jerusalem which dates from the fifth century. He comments particularly on the trefoil apse with reference to its Hellenistic prototypes and subsequent use, and discussing the style of the capitals and the sarcophagi which remain from the original building.

Cruciform Fonts in the Aegean Area.-In B.S.A. XIX, Session of 19121913, pp. 118-122 (3 figs.), S. Casson describes the present condition of the baptistery at Kepos in Melos, in which is a cruciform font, a square or rectangular basin into which steps lead down from the four sides. A slab resting on a pillar before the font was probably a seat, rather than an altar. Ibid. pp. 123-132 ( 6 figs.), R. M. Dawkins describes ten cruciform fonts at different places in the Aegean area. The steps are not always on all four sides, but on four, two, or one. Some fonts are monolithic, others, like that at Kepos, built of slabs.

The Abbey of Bella Paese in Cyprus.-In J. B. Archit. XXI, 1914, pp. 482-488 (14 figs.), G. Jeffery describes the work done in 1913 in an effort to
preserve as much as possible of the Abbey of Bella Paese in Cyprus. Two buttresses were built against the west wall of the refectory to take the place of demolished buildings on this side; tree roots and other vegetable growths were removed from the refectory roof, which was then covered with cement; hundreds of cartloads of earth were removed from the precinct and the area drained; the buried ruins of the Chapter House were uncovered; and supports were provided for the cloister arcades. While this work was being done many details of the architecture were recovered, e.g. the design of the tracery in the windows. The cloister of Bella Paese is in the Flamboyant style with reminiscences of Spain. No other such cloister exists in the East.

East Christian Paintings in the Freer Collection in Detroit.-The University of Michigan has issued, as Vol. XII, 1 of its Humanistic Series, a monograph by C. R. Morey on some Byzantine and Coptic paintings in the collection of Mr. Charles L. Freer at Detroit. The first part of the volume is devoted to two


Figure 3.-The Dance of Salome
miniatures from a manuscript of the Heavenly Ladder, a work written on Mt. Sinai about 600. The miniatures can be dated about 1130, and their place of origin identified as the monastery of St. John Baptist at Constantinople. A discussion of other illustrated manuscripts accompanies this part of the work. The second portion deals with a series of eight miniatures from a manuscript of the Gospel, dating in the end of the twelfth century. The last section treats the painted wooden panels which form the covers of the Washington manuscript of the Gospels. They are adorned with the portraits of the Evangelists, and are important not only in establishing the Coptic type of Mark, but as illustrating the orientalization of Coptic art in the early seventh century.
A Silver Censer from Asia Minor.-F. Sarre brought back from his Asia

Minor expedition of 1895 a silver censer of peculiar form adorned with Gothic architectural motifs, and bearing the incised figures of Christ, the Virgin, John the Baptist, and Saints Basil, Chrysostom, and Gregory. Sarre regarded the censer as a native work of the fifteenth century based on a European model. W. Siehe points out in Mh.f. Kunstw. VII, 1914, pp. 343-345, that the censer comes from the church of Hagios Stephanos on the island of Nis in the lake of Egedir, and that the saints include the three great Cappadocian fathers, Basil, Chrysostom, and Gregory: The architectural forms, moreover, are precisely those Gothic motifs which are common at Nigde and its neighborhood. He considers the work of entirely original local origin, and is inclined to date it about the thirteenth century.

The Dance of Salome.-In R. Arch. XXIII, 1914, pp, 349-378 (pl.; 21 figs.), F. de Mély publishes a photographic reproduction of a painting in the cathedral at Brunswick (Fig. 3), which represents Salome dancing before Herod and other details of the death of John the Baptist. The painting is signed by Iohan Wale Peter, and is to be dated in the thirteenth century. Other mediaeval representations of the same scenes (from illuminations and sculptures) are discussed, with illustrations. Two miniatures of the Reichenau school (the Evangelary of Otho, bishop of Bamberg, who died in 1139, now in Munich, and the Evangelary of Augsburg) and the Evangelary of Otho III (died 1002) at Aix-la-Chapelle agree closely with the Guide to Byzantine Painting. The burial of Saint John by the apostles John and Andrew, in the tympanum from the church of Saint Martin d'Ainay (eleventh century) at Lyons, is derived from the same source. . Other representations are independent of the Guide. After 1215 the dance of Salome has the character of tumbling for about two centuries. A cryptogram gives the date 1246 for the fresco at Brunswick.

Levantine Currencies.-In B.S.A. XIX, Session of 1912-1913, pp. 174-181 (pl.), F. W. Hasluck describes a hoard of 136 French and Neapolitan coins found in one of the southern Sporades, probably Kasos. He also prints notes on the coinage of the Latin Orient in 1458 from the Itineraries of William Wey of Eton.

Folk-Legend and History in the Nearer East.-In B.S.A. XIX, Session of 1912-1913, pp. 182-228, F. W. Hasluck discusses various Turkish stories and their historical background under the titles "Graves of the Arabs in Asia Minor" (pp. 182-190), "Christianity and Islam under the Sultans of Konia" (pp. 191-197; 3 figs.) "Turkish History and Folk-Legend" (The Rise of the Karaosmanoglou; The Story of Sari Saltik; The Girding of the Sultan; pp. 198220), and "The Forty" (pp. 221-228). The material is not archaeological, but may be indirectly of archaeological interest, and is, therefore, mentioned here.

Strzygowski on "Kunstforschung."-In Z. Bild. K. XXVI, 1914, pp. 3-11, J. Strzygowski sketches the changed conditions under which the art historian is working as compared with those of a generation ago, and pleads for a more general recognition of the change, and an adjustment of University teaching and Museum administration to the new point of view. This new point of view is chiefly characterized by a reaction against specialization, and a broader conception of the History of Art as a science.

## ITALY

The Tomb of Galla Placidia at Ravenna.-In Boll. Arte, VIII, 1914, pp. 141-176, C. Ricci continues his description of the tomb of Galla Placidia at Revenna, and deals with the mosaic decoration. Among the important questions which are discussed in the article is the identity of the figures which appear in pairs in the four lunettes under the dome. Ricci considers them to be apostles. He also brings evidence in support of the appellation Saint Lawrence given to the figure with the cross advancing toward the flaming gridiron in the lunette of the south arm, and cites a number of interesting parallels for the Good Shepherd scene.

A Portrait of Justinian II.-In Röm. Mitt. XXIX, 1914, pp. 71-89 (3 pls.; 7 figs.), R. Delbrueck identifies the so-called Carmagnola of San Marco at Venice as a portrait bust of Justinian II (685-695 and 705-711 A.d.). This porphyry bust, which has unusual anatomical interest owing to the attempt to represent a mutilated nose, adorns the loggia of the bronze horses.

Romanesque Decoration in Florence.-In L'Arte, XVII, 1914, pp. 265-280, and 369-378, M. Salmi discusses the Romanesque style of decoration in Florence on the basis of the minor products-cancelli, pulpits, etc.-during the twelfth century, and into the thirteenth to the period when Gothic motifs and the plastic decoration of the Pisan school supplanted the old Florentine opus sectile.

Florentine Primitives in America.-In Art in America, II, 1914, pp. 263-275 and $325-336$, O. Sirén discusses the following early Florentine paintings in American collections: A Madonna by Bernardo Daddi in the collection of the New York Historical Society; a Madonna by Taddeo Gaddi in the same collection; three panels by Andrea Orcagna in the Jarves collection, representing Saint Peter, Saint John Baptist, and the Adoration of the Magi; a Madonna and Saints by Nardo diCione; a Madonna by the same painter in the possession of Mr. G. L. Winthrop, New York; a "Nativity and Resurrection" by Jacopo di Cione in the Jarves collection at New Haven; a triptych of the school of Orcagna in the collection of the New York Historical Society; a panel representing the Nativity, Annunciation and Entombment, Jacopo di Cione, in the Fogg Museum at Harvard; the "Quattuor Coronati" by the same painter in the Johnson collection at Philadelphia; a Madonna and Saints, also by Jacopo, in the Jarves collection, New Haven; and a Crucifixion, again by Jacopo di Cione, in the possession of Mr. Philip Lehmann, New York.

Fra Giovanni Dominici and Fra Angelico.-In two articles published in L'Arte, XVII, 1914, pp. 281-288, and 361-368, I. Maione compares the writings and sermons of the founder and prior of the Dominican monastery of S . Domenico at Fiesole, Giovanni Dominici, with the work of Fra Angelico, and finds that the religious conceptions of the latter were profoundly influenced by the ideas of his spiritual superior.

Tovaglie Perugine.-In Rass. d'Arte, XVII, 1914, pp. 108-120, W. Bombe publishes a portion of the results set forth in greater detail in his forthcoming book on these embroideries of the fourteenth and fifteenth centuries. The article concerns itself particularly with the symbols and motifs employed, the most interesting of which are the Siren-motif, the dancers, the fountain of Perugia, and the Devil on a dragon.

## FRANCE

Gothic Writing Tablets.-In M. Soc. Ant.Fr. 1913, pp. 301-313, L. Serbat publishes a set of ivory writing tablets in private possession consisting of six leaves, of which the outer ones, the covers, are adorned with reliefs of the fourteenth century representing the Madonna with angels and the Crucifixion, while the four inner leaves have their faces sunken to receive the wax on which the writing was inscribed. A leather case with tooled ornament accompanied the tablets. While no tablets of this kind have been found that antedate the thirteenth century, there can be no doubt that they are the direct descendants of the ancient type.

## GERMANY

The Franco-Flemish Strain in Lower Saxon Painting.-Light is thrown on Franco-Flemish influence in Lower Saxon painting by V. C. Habicht who contributes to Mh. f. Kunstw. VII, 1914, pp. 359-366, a discussion of two altar-pieces of Lower Saxon origin which show the entry into the art of this district of Franco-Flemish ideas. The first is the altar-piece of the Aegidienkirche at Münden, the right wing of which is wholly the work of a FrancoFlemish master, while the left wing betrays the hand of a local pupil working in his style. This pupil in turn was the author of the altar-piece of the Brüdernkirche at Braunschweig. The writer dates the first of these works 1390-1400, the second in the beginning of the fifteenth century.

## RENAISSANCE ART

## ITALY

Terra-Cotta Figures by Ghiberti.-In Jb. Preuss. Kunsts. XXXV, 1914, pp. 385-386, W. Bode discusses a series of half-figures of the Madonna in high relief, modelled in terra-cotta, which he attributes to Ghiberti on the basis of their resemblance to figures on the first gates for the Baptistery at Florence. To these he adds a statuette of the Madonna in the Louvre, and two of the same subject in the Victoria and Albert Museum of London. Four half-figures-one in the Lanz collection at Amsterdam, the others in the Berlin museum-are attributed to a follower of Ghiberti. Most of the Madonna reliefs which Bode attributes to the sculptor himself are also in Berlin.
The Interpretation of a Relief by Brunellesco.-In L'Arte, XVII, 1914, pp. 385-386, A. Marquand discusses the meaning of the relief on the altar in Brunellesco's "Sacrifice of Isaac," which reppresents a bearded man, holding a branch in his right hand toward the seated figure of a woman, and resting his left on the head of a youth who rises in half-figure out of the clouds at his feet. The writer interprets the scene as an allegory, alluding to Isaac as the ancestor of Christ, or the type of the Saviour, the allusion being pointed by the presence of the seated Virgin, and by the genealogical branch held by the bearded figure, who represents Abraham.
Luca della Robbia.-The third of the Princeton Monographs in Art and Archaeology is entitled Luca della Robbia. In this book Professor MarQuand gives a catalogue raisonné of the sixty-two genuine works of Luca, with
an introductory chapter on the life of the great artist, a chapter on sixty-five works in the manner of Luca della Robbia, a list of abbreviations, and an index. The catalogue is fully illustrated and supported by discussion, references, and documents. The book thus contains practically all the available information concerning Luca and his works. [Luca della Robbia. By Allan Marquand. Princeton Monographs in Art and Archaeclogy III. Princeton, 1914, Princeton University Press; London, Humphrey Milford; Oxford University Press. xl, 286 pp.; 186 figs. 4to. $\$ 7.50$ net.]

The Pietà of Palestrina.-In Z. Bild. K. XXV, 1914, pp. 325-332, V. Wallerstein returns to the attribution of the Pietà in the church of S. Rosalia at Palestrina to Michelangelo. The group, which is carved from the living rock, was first published in the Gaz. B.-A. of 1907 by Grenier, who there assigned it to Michelangelo (see A.J.A. 1907, p. 376). Wallerstein points out that Cecconi, whose account is the only one which certainly refers to the group, says that it is a work of Buonarroti, and that the polished finish, the carefully worked loin-cloth, and the slightness of the lower part of Christ's body, all of which have been cited against Michelangelo's authorship by Thode and others, are changes due to a later re-working of the group.

The Schola Cantorum of the Church of S. Saba.-In Studi Romani, II, 1914, III, pp. 224-228, P. Stygel describes the "Schola Cantorum" of the church of S. Saba, and attempts a reconstruction of it.

Botticelli and Neoplatonism.-In Art in America, II, 1914, pp. 257-263, C. Post points out the influence of the revival of Neoplatonism at the court of the Medici as the explanation of the mysticism which informs the work of Botticelli, and illustrates this particularly with his Madonna in the Gardner collection in Boston.

The "Botticelli" Depositions.-There are three renderings, in the manner of Botticelli, of the Pietà. None of them are painted by the master himself. The one in the Poldi-Pezzoli museum, of which a replica exists in the Bautier collection at Brussels, is evidently done after a sketch by Botticelli, since the attitude of Christ is exactly that of one of the figures in his illustrations for the Inferno. The Munich Pietà, which is the earliest of the three, seems to have been composed by Botticelli, but the painting is of a totally different technique. (J. Mesnil, Rass. d'Arte, XIV, 1914, pp. 207-211.)

Carpaccio and Titian.-In Mh.f. Kunstw. VII, 1914, pp. 317-322, T. НetzER points out a series of affinities with Carpaccio manifested in Titian's early work, notably in the series of Miracles of Saint Anthony in the Scuola del Santo at Padua. He concludes that the parallels amount to a real influence, which was not exercised through the medium of the Bellini, but may have been conditioned by a relation of Titian to Lazzaro Bastiani.

Moretto and G. B. Moroni.-In two articles in L'Arte, XVII, 1914, pp. 289-300, and 321-332, M. Biancale analyzes the art of Moretto, showing how on a basis of the provincial tradition of Brescia, the painter became a great eclectic, assimilating the data of the Venetians into a personal style which did not surrender the local strain entirely, as was the case with Romanino. The second article is devoted to C. B. Moroni, and traces the relation of this artist to his model Moretto, showing how he decomposed the elements of his master's style, copying him in a kind of fractional way without real interpretation. The writer points out the many cther influences that played upon the painter-

Giovanni Bellini, Palma, Lorenzo Lotto, even Michelangelo-and discusses finally that part of his work wherein he approximated a personal style.

Piero Dei Franceschi and Venetian Painting.-R. Longhr devotes two articles in L'Arte, XVII, 1914, pp. 198-221 and 241-256 to the relation of Piero to the Venetian painters, an influence which the writer traces through Antonello da Messina and Giovanni Bellini.

The Artists of the Ducal Palace of Urbino.-In L'Arte, XVII, 1914, pp. 414-473, L. Venturi writes of the various artists who contributed to the building and adornment of the ducal palace of Urbino, the finest of the ducal residences of Italy. The artists treated are: Francesco Laurana, Luciano Laurana, Francesco di Giorgio Martini and Baccio Pontelli, to whom Venturi attributes the intarsia decorations of the "studiolo" of Federigo da Montefeltro, Francesco di Simone Ferrucci, Ambrogio Barocci and Gian Cristoforo Romano. The article is abundantly documented and illustrated.

The Berlin "View of Florence."-In Jb. Preuss. Kunsts. XXXV, 1914, pp. 90-102 C. Huelsen announces the discovery of the original from which the interesting wood-cut bird's eye view of Florence in the Berlin Kupferstichkabinett was copied. This original is preserved in only one of its former six leaves and is a copper engraving in the archives of the Società Colombaria at Florence. The engraving is mentioned as "una Firenze di sei fogli reali" in the inventory of the property left by Alessandro Rosselli, nephew of Cosimo Rosselli, who died in 1525 . The wood-cut itself dates from the early part of the sixteenth century and was in all probability executed by Lucantonio degli Uberti. The article closes with a transcription of the Rosselli inventory.

## BELGIUM AND HOLLAND

The Master of the Morrison Altar.-Starting with an Adoration of the Magi in the Johnson collection in Philadelphia, M. J. Friedlaender assembles in Z. Bild. K. XXVI, 1914, pp. 12-16, a series of five altar-pieces which he ascribes to the painter of one of them, a polyptych in the possession of Mrs. Alfred Morrison. He is inclined to regard the artist as a pupil of Quentin Metsys, and suggests an identification with Ariaen Scilleman. If, however, the strange "Joachim and Anna as the forbears of the Virgin" in the Brussels gallery be by the same master, the relation to Metsys becomes less certain.

Identification of Rembrandt Portraits.-In Mh.f. Kunstw. VII, 1914, pp. 279-282, W. R. Valentiner identifies the sitters in a number of portraits by Rembrandt. These are: the two portraits of a man and his wife, the former in the Brussels gallery and the latter the "Lady with a Fan" in Buckingham Palace, being the likenesses of Abraham van Wilmerdonx and his wife; two portraits in the Lichtenstein Gallery at Vienna, of the artist's brother-in-law, François Copal, and Saskia's sister, Titia; a newly-discovered portrait of Rembrandt's son Titus at Dulwich College; a portrait of the landscape painter, Jan van Capelle, in the Frick collection at New York; and a sketch of an artist at work in the possession of M. E. Moreau-Nélaton at Paris.

Jan Lys.-Jan Lys, a painter of the early seicento, is the subject of a monograph in Jb. Preuss. Kunsts, XXXV, 1914, pp. 136-167, by R. Oldenbourg. He rearranges the oeuvre of the painter in chronological order, shows that he is to be regarded rather as an Italian than as a Dutch master, and analyzes
the development of his style. Starting with a symmetrical composition, and using the systematic treatment of light and shade that he borrowed from Caravaggio, Lys arrived later at a decentralized arrangement, and direct lighting, a result obtained by close study of Titian. The resemblances to Rubens are due to the use common to both these painters of Titian as a common source.

## GERMANY

A New Augsburg Sculptor.-In Mh. f. Kunsisw. VII, 1914, pp. 219-222 A. Feulner notes the signature on a tomb in the cathedral of Passau: CHR. MR. AVG. and points out that the style of the reliefs on the monument is that of a monument in the cathedral of Augsburg. The signature is that of the sculptor Christoph Murmann of Augsburg, to whom a number of works can be assigned on the basis of the tomb at Passau.

The Master of the Breisach Altar.-In Jb. Preuss. Kunsts. XXXV, 1914, pp. 103-135, T. Demmeer discusses the work, style, and probable origin of the sculptor of the remarkable high altar at Breisach who signs himself H. L. Research has not revealed the meaning of the initials, but the writer shows that he is the same artist as the monogrammist H. L., who is not to be identified with Hans Leinberger. The chief characteristics of his style are the curious baroque draperies, which are developed according to an individual decorative sense, without reference to the form they cover, into a curvilinear design, and the clever use of the depth of the niches to produce a pictorial effect of shadow. A pupil or pupils of the master did the altar in Niederrothweil, while the two statues of Saint John Evangelist and the Baptist in the Germanisches Museum at Nürnberg are due to the hand of the Breisach master himself.

The Statuettes of Strassburg Steeple.-The figures which crouch on the railing of the gallery at the top of the steeple of the cathedral of Strassburg are the theme of an article in Mh.f. Kunstw. VII, 1914, pp. 283-294, by H. Christ. He finds that they are the first representatives of the realistic movement which entered German sculpture at the beginning of the fifteenth century, and that their style is derived from the contemporary Burgundian-Flemish work. The same influence conditioned the evolution of sculpture at Köln, and from these two centres the movement passed to Ulm.

A New Interpretation.-The two fine heads from the old Chancellery of Strassburg, dating from the second half of the fifteenth century, of which only the casts are now extant, have always in Strassburg tradition passed under the names of Graf von Lichtenberg and his mistress, the "schöne Bärbel." In Mh.f. Kunstw. VII, 1914, pp. 346-348, E. Major proves that the heads were arranged on a stairway of the building so as to compose the scene of the trick played by his inamorata on Virgil "the magician" when she lowered him from her window half way to the ground in a basket, and then tied the cord.

The Evolution of Friedrich Herlin.-In Mh.f. Kunstw. VII, 1914, pp. 323329, J. Baum reconstructs the artistic evolution of Herlin as follows: His early works are the Altar of 1459, the two altar-pieces at Rotenburg, and the Ecce Homo of Nördlingen, all Suabian works showing no traces of Flemish influence; the Altar-piece of Bopfingen, 1472, shows a change of style; the final altar-pieces, the high altar of Nördlingen (ca. 1478), and the altar-piece of 1488 , show a veritable dependence on the style of Roger van der Weyden and Memling.

Dürer's Portraits of His Wife.-Agnes Dürer appears eight times in Dürer's drawings and engravings. In the master's paintings one finds her likeness used for the Madonna's head in the Dresden altar, which is to be dated at the end of the fifteenth century, and for the head of Saint Anne in the "Saint Anne" of the Metropolitan Museum in New York. A study for this head is found in a drawing of the Albertina at Vienna. (G. Padli, Z. Bild. K. XXVI, 1914, pp. 69-76.)

## SWEDEN

Studies in Renaissance Art in Sweden.-In Skriften utgifna af Kungl. Humanistiska Vetenskaps-Samfundet i Uppsala, XV, 1, 1914 (172 pp.; 64 figs.), A. Harr publishes studies in renaissance art in Sweden. 1. He shows that the monument of Johan III, designed by Willem van der Blocke at Danzig between 1594 and 1596 and now in Upsala, was suggested by the monument of Andrea Sansovino in S. Maria del Popolo at Rome, although there is no record of the artist's visit to Rome. He was also influenced by works at Antwerp and at Cracow. 2. He shows that the tower on the castle of Vadstena is an imitation of the one on the Rathaus at Emden. 3. The source of Pahr's rustic style is to be found in French works on architecture such as Cerceau's Livres d'architecture, published in 1559. 4. The style of the fountain of the castle at Kalmar was also suggested by Cerceau's book. The artist was probably Roland Mackle. 5. The monograph concludes with a study of the renaissance castles in Skåne.

## ENGLAND

Bygone Haslemere.-A book of interest to students of local history and antiquities in England, especially in Surrey, is Bygone Haslemere. The history, antiquities, documentary records, and genealogies (so far as they seem likely to be of interest) of the borough of Haslemere, in Surrey, are discussed from the earliest times. [Bygone Haslemere. A Short History of the Ancient Borough and its Immediate Neighbourhood from Earliest Times. Edited by E. W. Swanton, aided by P. Woods. London, 1914, West, Newman \& Co. xvi, 394 pp.; 41 pls.; 3 maps; 38 figs. [8vo. 7 s. 6 d.; ed. de luxe, £1, 1 s.]

## AMERICAN ARCHAEOLOGY

## GENERAL AND MISCELLANEOUS

Sacred Bundles of the Sac and Fox Indians.-In Anthropological Publica.tions of the Museum of the University of Pennsylvania, IV, No. 2 (Philadelphia, 1914), pp. 121-262; pls. 20-40, M. R. Harrington discusses the sacred bundles of the Sac and Fox Indians. Twenty-two "war bundles" and thirteen "medicine bundles" in the Museum of the University of Pennsylvania are described.

Dance Festivals of the Alaskan Eskimo.-Under the title The Dance Festivals of the Alaskan Eskimo (Philadelphia, 1914, University Museum. 42 pp.; 5 pls.), E. W. Hawkes describes five festivals which he designates as the Asking Festival, the Bladder Festival, the Annual Feast to the Dead, the Great Feast to the Dead, and the Inviting-in Feast.

Chasta Costa Phonology.-In Anthropological Publications of the Museum of the University of Pennsylvania II, No. 2 (Philadelphia, 1914) pp. 269-340, E. Sapir publishes notes on Chasta Costa phonology and morphology.

Areas of American Culture.-In Amer. Anthr. N. S. XVI, pp. 413-446, W. H. Holmes divides the American continents into culture areas on the basis of the prehistoric remains. The several areas are tentatively outlined to facilitate descriptive and comparative studies of the numerous classes of artifacts. For North America the leading authorities on each area are listed.

Early Indian Migrations in New England.-The early migrations of the Indians of New England and the Maritime Provinces are discussed by R. B. Dixon in Proc. Am. Antiq. Soc., Vol 24, pp. 65-76. He assembles all available archaeological and linguistic evidence and finds that two main divisions may be recognized: the southern and the northern. Archaeologically, the former, covering southern New England, is characterized by a high development of village life, importance of agriculture and use of the grooved axe. The northern division, taking in Maine and the Maritime Provinces, is characterized by a weak development of village life, absence of agriculture and defensive works, lack of grooved axes and abundance of stone gouges. In the northern division are also found graves, apparently very old, containing red ochre and slate points. Linguistically, the Algonkian peoples, who in the seventeenth century occupied the whole area, are also divisible into northern and southern groups, the former comprising the Micmac and Abnaki, the latter the Indians of Massachusetts and Connecticut. Summing up all the evidence, it is tentatively concluded that the southern group came in from the general direstion of the Ohio valley, passed up the Hudson and into Connecticut and Massachusetts, forcing northward the early inhabitants who may perhaps have been the Abnaki. The other half of the northern group, the Micmac, seem to have come into the Maritime Provinces from the St. Lawrence valley. The very old graves with slate points and red ochre may have been made by a pre-Algonkian people, possibly by the Beothuc, who were, perhaps, pushed north into Newfoundland by the incoming Algonkians.

Climatic Influences on Early Pueblo and Maya Peoples.-In The Climatic Factor as Illustrated in Arid America (Washington, 1914, Carnegie Institution. 341 pp.; 12 pls.; 90 figs.; 2 maps.), E. Huntington seeks to show that the climate of the last 2,000 years has been subject to changes and that these changes have been of a pulsatory nature. The lines of evidence employed are: Alluvial terraces, changes in lake levels, rate of tree growth, and distribution of ruins. The archaeological evidence is drawn from the study of prehistoric ruins in the southwest and in Central America. In the southwest, abundant signs of prehistoric agricultural people were found in Santa Cruz Valley, Arizona; near Buzani, Sonora; in Chaco Cañon and the Rito de los Frijoles, New Mexico. Lack of water in all these localities is now so acute that it seems impossible that large agricultural communities could ever have been able to gain a living there under present conditions. Hence, it is concluded that in former times the climate was moister than at present. In Central America the remains of the highest Maya civilization are found in those portions of the area which, because of their monotonous climate, excessive rainfall, heavy forests and malarial fevers are now the least fitted for human occupation. If, however, the climate at the time of the culmination of the Maya culture, say 1 a.d.,
had been drier, the forests would have been less dense, there would have been a true winter dry season and the annual temperature would have been more variable, therefore more stimulating. These conditions could have been produced in Central America by a southerly shifting of the storm track and such a shifting would also have brought to the southwest the moister conditions indicated by the ruins there. Changes of climate are shown by the study of alluvial terraces and in variations of the level of lakes; they are also revealed by the measurement of the annual growth-rings of the very long-lived sequoias of California. Certain periods of abundant rainfall, actually datable by means of these trees, seem to be correlated with periods of great cultural advance both in the southwest and in Central America.

Stone Collars from Porto Rico. -In Amer. Anthr. N. S. XVI, pp. 319330 (13 figs.) J. W. Fewkes studies the decorations on a number of the socalled "stone collars" from Porto Rico. On an example in Bremen the protuberance, characteristic of all the collars, takes the form of an animal head with lateral appendages. On this evidence it is concluded that the decorations on the knobs of the other collars represent animal or reptilian heads in more or less advanced stages of conventionalization.

Principle of the Screw in Eskimo Technique.-In Amer. Anthr. N. S. XVII, pp. 1-16 (7 figs.), M. P. Porsild brings together published and original evidence as to the varieties and distribution of screw-like objects used by the Eskimo. The screw principle is carried out by spiral grooves or spiral raised ridges carved on the butts of arrow-points in order to attach them to their shafts; also on wooden or bone plugs for closing wounds in the hides of animals. The screw is found from East Greenland to Alaska and is undoubtedly of native origin.

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1914

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#### Abstract

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## GENERAL AND MISCELLANEOUS

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## Archaeological

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## A CHRYSELEPHANTINE STATUETTE OF THE CRETAN SNAKE GODDESS

## [Plates X-XVI]

The statuette illustrated on Plates X-XVI was acquired by the Museum of Fine Arts, Boston, in 1914, as a gift from Mrs. W. Scott Fitz. ${ }^{1}$ According to information believed to be reliable, it came originally from Crete, but no details as to the time, place and circumstances of its discovery have been ascertained. It is carved in ivory, richly decorated with gold, and measures 0.161 m . or about $6 \frac{1}{2}$ inches in height.

Plates X-XII show the figure as it is now exhibited in the Museum. The goddess stands proudly with her arms held out to the front, and grasps in each hand a gold snake which lifts its head and coils its tail about the forearm. Though the pose is strictly frontal, it is not stiff and rigid, but on the contrary full of life and energy. The lower part of the body slopes forward slightly, the shoulders are drawn back, and the chin is held in, so that the outline of the back forms one sweeping curve from the top of the headdress to the waist. It is the pose which is illustrated by all the known representations of Minoan men and women, and which seems not to have been an artistic convention, but a feature of the actual appearance of this aristocratic race. ${ }^{2}$
${ }^{1}$ It has been briefly described by the present writer in the Bulletin of the Museum, XII, 1914, pp. 51 ff . (4 figs.), and in a paper read at the Annual Meeting of the Archaeological Institute of America in December 1914. Cf. Art and Archaeology I, March 1915, p. 211. Professor E. A. Gardner has discussed it in Ancient Egypt, 1915, Part I, pp. 49 ff. on the basis of photographs, enlargements of which he reproduces. A notice in the Burlington Magazine, XXVII, 1915, p. 45, ends with these words: "the provenance is not stated, and the illustration gives an unfavorable impression of the work which must await further elucidation." It is hoped that the photographs of the statuette here published and the accompanying detailed description will furnish to those at a distance the materials for forming a just estimate of its worth.
${ }^{2}$ Cf. Rodenwaldt, Tiryns, II, p. 70.

The goddess wears the characteristic Minoan costume, consisting of an elaborate headdress, a tight-fitting jacket cut so low in front as to leave the breasts completely exposed, and a full skirt with five pleated flounces. But before describing this costume in detail, it will be well to examine for a moment the condition of the statuette on its arrival in Boston, before the repairs were undertaken which have restored, so far as was possible, its original appearance.

The ivory is preserved in a fairly sound condition, but badly split and warped, especially in the lower part, so that several fragments had to be separated before they could be handled (cf. Plate XV). The body was made in two pieces; the joint ran across the skirt near the bottom of the second flounce, and was partly concealed by the gold band which decorated the hem. An oblong vertical projection, left on the lower piece at the back, extends almost to the waist, and the joint was further secured by a cylindrical ivory pin placed near the front, a little to the left of the centre. As appears clearly in the photographs, the upper part of the body had begun to split in two, laterally, while the statuette was still in use; to check this tendency a hole was drilled in obliquely from behind at the left side, and an ivory pin inserted. The arms also were carved separately, and secured by means of dove-tailed tenons, about 0.015 m . long, which were slid from above into corresponding mortises in the body. The exquisitely carved left arm, thanks to the gold band and snake which encircle it, is preserved practically intact. A similar gold band and the fore-part of a second snake were also found, together with some fragments of the right arm; but the latter were too small and fragile to be used in the reconstruction. The gold girdle remains in position, as well as the small gold nail which represents the nipple of the right breast; the nail in the left breast has been lost owing to the splitting of the ivory. Of the gold decoration there are preserved also five narrow bands of thin gold plate, four of which certainly belong to the hems of the flounces, a small strip of gold pierced by three nail holes, and six of the nails by which the bands were fastened (two of them in place on the front of the skirt). Numerous drill holes in the body make it clear that there was more of this gold decoration which has been lost.

After the fragments had been impregnated with paraffin they were put together as shown on Plate XVI. The left arm was
then replaced in exactly the original pose as indicated by the joint and socket, and the right arm was restored in plaster in order to make use of the band which encircled it and the fore-part of the snake which the hand held. The tail-part of this snake is a restoration in lead, plated with gold. The missing portions of the skirt have been filled out with wax, making it possible to replace the gold hems of the flounces. As may be seen in the photographs (Plate XVI) enough of the bottom surface of the figure is preserved to give its height with certainty. The original tip of the nose which had flaked off was discovered by the repairer among the numerous tiny fragments of ivory and replaced, adding greatly to the individual character of the profile. ${ }^{1}$

Plates XIII and XIV show two enlarged views of the head. This is in the main well preserved, though the forehead, the left eye, and the left side are injured. The elaborate headdress, or crown, is of a type which appears to be without parallels in Minoan art. It curves up at the front, back, and sides in semi-circular form, and a small cylindrical piece, now much damaged, rises in the centre. Each of the four semi-circular divisions is pierced near the top for the attachment of a rosette or some other ornament, probably of gold, and the one at the front is further decorated with a small raised disk, or boss. A gold band encircled the crown near the bottom, as


Figure 1.-Two Ivory Heads from Knossos is proved by a nail hole at the back. The hair over the forehead is treated as a slightly raised mass in which is a row of seven drilled holes, about 6 mm . deep, with shallow circular depressions between them. On the analogy of the well known ivory heads from Knossos (Fig. 1, reproduced from B.S.A. VIII, p. 72, figs. 37, 38), it may be confidently asserted that these holes held small gold curls, and that they did not serve for the attachment of a gold wreath, or diadem, as Gardner has suggested. Numerous frescoes show that such loose tendrils of hair floating about the forehead were a characteristic

[^67]feature of the Minoan lady's coiffure. At the back the hair falls in a mass of wavy locks a little below the shoulders. The strands, carved with great delicacy and freedom, are best preserved on the right side (Plate XIII). The face is rather long, narrowing gradually to the small, prominent chin, and with somewhat abrupt transitions from the front to the sides. The eyes (only one is preserved) were narrow, with accentuated lids, and, as Gardner has noted, sunk to their natural depth below the brow. The


Figure 2.-Two Faience Statuettes from Knossos pupils were indicated by drilled holes. The most surprising feature of the face is the nose with its outline composed of a concave and a convex curve, and its dilated nostrils. It differs entirely from the usual Minoan type, as illustrated by the frescoes and the ivory heads of acrobats. The carving of the small mouth with its protruding upper lip add much to the lifelike character of the profile. It is noteworthy that the ear is of natural size, and all but correctly placed-another point in which this differs from most of the known Minoan representations.

The four views of the figure on Plate XVI show clearly the various drill-holes which furnish conclusive evidence as to the arrangement of the gold bands. A hole in the base of the neck and one on either side of it served to attach a necklace. The jacket resembled closely those of the two faience statuettes from Knossos (Fig. 2). ${ }^{1}$ It extended up to the neck behind, and had

[^68]tightly fitting sleeves reaching half way to the elbows. The hems of the sleeves are represented by gold bands, both of which are preserved. They are decorated with an incised pattern consisting of short horizontal strokes arranged in vertical rows. A hole in the top of the left arm suggests that ornaments of some sort were fastened on the shoulders. The edges of the jacket ran downwards from each side of the neck, leaving the breasts exposed, and were brought together in front at the waist. Originally these edges were marked by gold bands, as is proved by the rivet holes in the sides of the breasts (see Plate XVI). Experiments with strips of paper showed that bands of gold, similar to those on the skirt and fastened with nails at either side of the neck, at the sides of the breasts and at the waist in front, could be made to lie flat against the ivory throughout their whole extent. The V-shaped opening in front was filled with a strip of gold which has fortunately been preserved. It is pierced by three holes which correspond exactly with the three holes in the front of the body; and further proof of its location is afforded by the fact that it is bent in at the bottom to fit the groove which runs around the waist. The upper end of the strip is broken off, showing that it was continued upwards, probably in the form of a loop, such as is represented in a corresponding position on the faïence figures of the snake goddess and her votary.

The slender waist is confined by a girdle of the characteristic Minoan form, a concave hoop of gold. It is fastened by a nail at the back, and slopes downward from front to rear. Just above it is the shallow groove already referred to, and there is a corresponding groove below. Both are parallel to the girdle, and seem to have some connection with it. A possible explanation of them is suggested by a comparison with the belt of the Knossian cupbearer, as described by Myres, B.S.A. IX, p. 365: "The concave profile $a$ is the belt itself, which from its colour, and thin edges, seems to have been a smooth plate of metal. Its out-turned edges $b-b$ prevent it from chafing the body of the wearer; and this end is further secured by the torus mouldings. $c-c$ which seem from their form to represent a padded cushion-like belt of some elastic material which enabled
$\left.{ }^{B}{ }^{B}{ }^{4}\right)_{C}$ a very considerable pressure to be applied either by means of the metal belt itself or by a tightly drawn lace or thong wound closely upon its concave surface. In the latter case the smooth ends of the metal beit would slide
over one another as the pressure was applied; and this would explain the absence of any sign of a metallic catch, and also the presence of a lace outside the metallic belt. The loose-looking swollen belts from the shrine of the SerpentGoddess at Knossos very likely represent the cushion $c-c .{ }^{\prime \prime}{ }^{1}$ Assuming that this explanation is correct, we may suppose that rings (of gold, or perhaps of a differently colored metal) were placed around the waist of the ivory figure above and below the concave belt, to represent this same pad or cushion. The grooves would keep them from slipping out of position.

The skirt is made with five flounces, the hems of which are decorated with bands of thin gold plate. Each band fitted closely into a depression cut along the edge of the flounce, and was held firmly in place by four gold nails. The bands increase in width from the uppermost to the lowest, ${ }^{2}$ and each has a different


Figure 3.-Diagram of Nail Holes and Gold Bands
incised pattern (cf. Fig. 3). That on the second band recurs on the hems of the sleeves. The zig-zag pattern with dots in the angles, on the fourth band, is found also on the jacket of the dancing girl on a fresco from Knossos (B.S.A. VIII, p. 55, fig. 28 ); and the row of 8 -shaped shields, on the lowest band, is a

[^69]familiar Minoan motive. This band runs horizontally around the bottom of the skirt; the others are brought down to a point in front, curve up at the sides and down again at the back. Whether the front of the skirt was flat, as it has been restored, or whether there was a slight depression running down the centre, such as is represented on a number of gems and frescoes, remains uncertain; the former alternative is, however, the more probable. As the result of the splitting of the ivory the circumference of the skirt at the bottom has been considerably increased, and the three lowest bands no longer reach completely around it. The second band fits exactly, but the first is too long. This state of affairs is illustrated by the diagram (Fig. 3), in which the spacing of the nail-holes in the five bands is indicated by the black lines, and the relation of the holes in the skirt to one another, less accurately, by the dotted lines. The lack of correspondence of the two sets of holes in the top row suggested the possibility that the band No. 1 might be the missing border of the jacket. The distance between the holes $a$ and $b$ does in fact correspond with the distance from the holes in the neck to those in the breasts; but the distance $b-c$ is much greater than that from the holes in the breasts to any of the three holes in front. The band has therefore been placed on the skirt, though it remains doubtful whether it originally belonged there.

As in several representations of Minoan dress, the topmost flounce is treated differently from the four others. ${ }^{1}$ The latter have vertical grooves carved on them, representing fine pleats. The surface of the former is rippled horizontally at the back and sides, but left smooth in front in the space included between two lines marked by the two sets of holes which run from the waist to the first band. Evidently two strips of gold were attached here, each by three rivets. The theory of Gardner, $l$. c., that these rivets may have held pendants from the girdle, would seem to be excluded by the variation in the treatment of

[^70]the surface. In the discussion of the statuette in the Bulletin, it was suggested that the strips formed the border of a small apron. But the resemblance to the double-apron, or panier, worn by the faïence figures, which led to this explanation, is slight. It may be preferable to assume that a piece of cloth of a different material was set into the front of the flounce, and more richly ornamented. Though no traces of paint are preserved, it may be regarded as certain that the details of the garments


Figure 4.-Ivory Figure and Head from Knossos were distinguished from one another and from the adjoining flesh parts by the use of different colors. Evans in his discussion of the ivories from Knossos (B.S.A. VIII, p. 73) regards it as probable "that the male figures at any rate were originally stained of a ruddy hue." In the present statuette the flesh would be leftyin the natural tone of the ivory, but the headdress, the jacket and the flounces of the skirt lend themselves to a rich polychrome treatment, an opportunity of which a Minoan
artist would not fail to make full use.
Except for the headdress and the treatment of the upper flounce of the skirt, the statuette adds no new details to our knowledge of Minoan costume. Its unique importance lies in the fact that it is the first representation of a female figure in the round yet discovered, which is worthy to be ranked with the male figures found at Knossos in 1902 (B.S.A. VIII, p. 72, pls. II, III, figs. 37-39). ${ }^{1}$ Made of the same precious materials and

[^71]corresponding in several points of technique, it resembles them also in the animation of the pose, the mastery of anatomy shown in the modelling of the arms, and the delicate carving of details. The best preserved of the Knossian statuettes represents an acrobat in mid-air, presumably leaping over the back of a charging bull (Fig. 4). In the words of Sir Arthur Evans "the life, the freedom, the élan of these ivory figures is nothing short of marvellous and in some respects seems to overpass the limits of the sculptor's art. The graceful fling of the legs and arms, the backward bend of the head and body give a sense of untrammeled motion, to a certain extent attainable in painting or relief, but which it is hard to reconcile with the fixity of position inherent in statuary in the round. . . . The naturalistic treatment of the individual parts of the body is quite in keeping with the animated appearance of the whole. The set of the arms and shoulders and the well-developed breast of the figure point to careful physical training, and the slender limbs reveal great sinewy strength,


Figure 5.-Arm of Ivory Figure from Knossos though in some examples the treatment of the flesh is softer, and may be due to a difference of sex." The problem which the artist of the snake goddess set himself called for a less daring treatment, but in imparting such vigorous life to the quietly standing little figure he has accomplished a feat which seems hardly less marvellous, and which proves him to have belonged to the same school. As has been said above, this impression is given especially by the poise of the head and shoulders which are thrown back to balance the extended arms; and the slight forward slope of the lower part of the body and the modelling of the abdomen contribute to the realistic effect.
the round in this material have survived. A fragment of a female statuette is published by Tsountas together with other ivories from Mycenae in ' $\mathbf{E} \phi$. 'Apx. 1888, pl. VIII. To the same series belongs the well-known helmeted head in relief. Similar heads have been found at Spata (B.C.H. II, 1878, pl. XVIII) and at Knossos. Two ivory plaques with delicate reliefs from Palaikastro are illustrated in B.S.A. XI, p. 285, fig. 14 a and b. For the combination of gold with ivory cf. several sword-hilts from Mycenae and the gaming board from Knossos (B.S.A. VII, p. 79, fig. 25).

The action of the arms being less violent, such detailed rendering of sinews and veins as is found on the arm of the acrobat (Fig. 5) was not necessary. But the left arm gripping the snake is tense and muscular as well as beautifully shaped, and the thumb and fingers are executed with equal care (Fig. 6). Nothing could surpass the delicate carving of the details of the head and of the crown with its subtle curves: it gains, rather than loses, in being enlarged to three times the natural size on Plates XIII and XIV.

A technical resemblance is afforded by the method of attach-


Figure 6.-Left Arm of Chryselephantine Statuette
ment of the arms; that of the acrobat shows a similar tenon and socket device. The holes over the forehead, which held metal curls, furnish another parallel, and the fragments of thin gold plate found with the Knossian fragments "suggest that the usual loin cloth, which was certainly not wanting, was supplied by its means." In the case of the snake goddess the rich court dress gave an opportunity for a much more lavish application of gold ornament, and its workmanship shows that the artist's skill as a goldsmith was on a par with his skill as a sculptor. The simple
and ingenious technique by which the snakes were fashioned is especially worthy of notice. Except for the head, each was formed of a single flat strip of fairly thick gold, narrowing gradually towards the tail. The front portion was hammered so as to make it thinner and broader. Then it was bent into a tubular form, and passed through the opening between the thumb and fingers like a thread through the eye of a needle. The tail-part was skillfully wound about the fragile fore-arm. A small portion at the forward end was flattened out again, and cut into the shape of a head. A piece of similar outline formed the lower jaw, and a narrow tongue was inserted between the two. The upper and lower pieces were fastened together by three rivets, and the projecting ends of two of these represent the eyes.

The resemblances just described suffice to show that the snake goddess is not "a freak of individual genius" as Gardner has suggested, but a work of the same period and school, perhaps even of the same atelier that produced the ivories from Knossos. The latter were found in the ruins of the later palace, and are therefore to be assigned to the first Late Minoan or possibly to the third Middle Minoan period which is now regarded as marking the culmination of Cretan art. The date of the statuette thus falls within the limits of the sixteenth and fifteenth centuries b.c.

As regards the subject represented, the nearest analogies are of course furnished by the well-known series of figures executed in faience which were found by Evans in the temple repositories of the later palace at Knossos and explained by him as representations of the great Cretan goddess in her chthonic aspect, and of her votaries. The pose of the ivory statuette is the same as that of the largest of these figures; the chief difference is that she lacks the snakes which are knotted together about the middle of the Knossian goddess. In some respects she resembles more closely the figure of a votary, who wears a flounced skirt and a metallic girdle, and has no snakes twined about her body. But the problem is further complicated. Dussaud, 'Questions Mycéniennes,' Revue de l'histoire des religions XXVI, 1905, p. 47, doubts the religious significance of the objects found in the "temple repositories," and Thiersch, Aegina, das Heiligtum der Aphaia, p. 372, proposes to call all these figures snake charmers, introduced into Crete from Egypt, and to be placed on a par with the acrobats, male and female, who performed daring
feats with wild bulls for the entertainment of Minoan lords and ladies. And one example cited by Thiersch seems to favor his interpretation. This is the well-known bronze statuette in Berlin (Fig. 7). She stands in a lively, momentary pose which disregards the law of frontality. Her knees are bent slightly, her right hand is raised to her forehead, and her left reaches across to grasp the snake on her right shoulder. The heads of two other snakes appear on the top of her head, and their bodies are knotted together on her back. She wears a flounced skirt, but is naked. above the waist. Nothing here suggests the goddess. ${ }^{1}$ On the other hand the connection of snakes with the cult of the Minoan goddess is abundantly proved by the Cretan discoveries. The rude, half aniconic image of a goddess rising from a cylindrical


Figure 7.-Bronze Statuette in Berlin
base found at Prinias ${ }^{2}$ and the similar idol discovered in the shrine at Gournia ${ }^{3}$ have snakes twined about them. They are seen again on the cylindrical objects found with the idols, ${ }^{4}$ which Mrs. Williams calls cultus vases, while Thiersch explains them as examples of the lofty headdress worn by the larger faience statuette. The central figure of the terra-cotta group found at Palaikastro apparently represents the goddess holding a

[^72]snake, while doves are perched on the base in front of her. ${ }^{1}$ These idols, together with the evidence accumulated by Evans to the effect that the objects in the temple repositories belong to a shrine, seem sufficient to prove that the faience figures, and consequently all the others, had a religious significance. If some of them, like the Berlin bronze, are human, they are perhaps best regarded as priestesses who performed magical rites with snakes in honor of the divinity, who is herself represented by the larger of the faience figures. And the chryselephantine statuette, which is by far the finest of the series, has also the best claim to be regarded as a representation of the central figure of the cult.

Museum of Fine Arts;
Boston.
L. D. Caskey.
${ }^{1}$ Dawkins, B.S.A. X, p. 217, fig. 6; Mosso, l. c. p. 283, fig. 136. According to the latter the figure is playing a lyre.

# Archatological <br> Jnstitute <br> of America 

## FRENCH FIGURE SCULPTURE ON SOME EARLY SPANISH CHURCHES

## I

The question of French sources for Spanish architecture and carving in the Middle Ages is not only hotly disputed, it is too often unfairly begged. If Spanish savants at times imply that the Peninsula received no influx of ideas after the Byzantine, yet on the other hand French scholars coolly write down, without a note of warning, such unwarrantable assertions as that Petrus Petri, the architect of Toledo cathedral, was a Frenchman. In dealing with half a dozen early churches in which (I think) the forms, or the iconography, or the arrangement of the figure-sculpture about the portals show that French workmen were there, I have tried to formulate a canon of judgment, somewhat as follows:

1. If the forms are those of French schools-the school of Toulouse, or the school of Chartres, or the school of Vézelaywe may justly infer a French master.
2. If a town lies on the pilgrim's direct road from France into Galicia, we may admit a legitimate presumption of French influence.
3. If, having found along with examples of case 1, other French traits, we then find these traits elsewhere (e.g. the Signs of the Zodiac and Labors of the Months, the Last Judgement in the tympanum, or consecutive histories from saintly legend in the archivolts), we may take them to establish a presumption of French influence themselves.

The half-dozen churches lie nearly all along the Way of S. James. Not being in cathedral towns for the most part, they have little history recorded. What they have deals with the gifts of Spanish kings to Knights of the Temple or of S. John, as at Sangüesa and Puente la Reina, or with the building of the Way, as at Estella, or with the repeopling from Burgundy, as at

Avila. The evidence must be sought, not in the archives, but in the stones. Yet during the whole period of church-building, travellers were crowding along the Way: the professional pilgrim, the man who went for a vow, and the workman on the tramp with his sack of tools over his shoulder. There must have been among these many stone-cutters and architects, for theirs is a wandering craft.

We know from one notebook that has survived, how a mediaeval architect saw the world. Villard de Honnecourt sketched in the thirteenth century precisely as George Street sketched in


Figure 1.-Toulouse; S. Sernin; Portal of Transept
the nineteenth. He went as far as Hungary, and perhaps his friend Peter of Corbie went as far as Toledo. Wherever he went, the notebook was in his wallet or in his hand; he put down what he saw, what he thought; whenever a discussion was on, the notebook was out.
"Vesci une glize d'esquarie (he writes) ki fu esgardée a faire en l'ordene de Cistiaus. Vesci l'esligement del chavec me Dame Sainte Marie de Canbrai, ensi com il ist de tierre. Avant en cest livre en trouverés les montées dedens et dehors, et tolé le maniere des capeles et des plains pans autresi, et li maniere des
ars boterès. Istud bresbiterium invenerunt Ulardus de Hunecort et Petrus de Corbeia, inter se disputando. Istud est presbiterium Sancti Pharaonis in Miaus. Vesci l'csligement de le glize de Miax de Saint Estienne. [These at the bottom of the page of drawings.] Deseure est une glize a double charole ki Uilars de Honecort trova et Pierres de Corbie. J'estoie une fois en Hongrie la u je més maint jor; la vi jo le pavement d'une glize de sifaite maniere. Chi prennés matere d'on piler metre a droites loisons. [It is at Rheims.] Ista est fenestra in templo Sancte Marie Carnoti." [N. D. de Chartres.] ${ }^{1}$ The next drawing is the


Figure 2.-Leon; S. Isidro; Portal of South Transept
rose of Lausanne. Such notebooks would come into play when men met, "inter se disputando," along the Way of S. James.

[^73]That way came in from France by four roads, which joined at Puente la Reina in Navarre. The first ran by S. Gilles, Montpellier, Toulouse, and the Port of Aspe. The second came down from Le Puy, by Conques and Moissac; the third from Vézelay, by S. Léonard (near Limoges) and Périgeux; the fourth by Tours, Poitiers, S. Jean d'Angély, Saintes and Bordeaux. The last two crossed the Pyrenees by the Port de Cize, and through the valley of Roncevaux, and came to Pampeluna, due north twenty miles from the bridge that the Queen builded, "and one way thence forward goeth on to S. James." The ways are long: at present I have to do mainly with one, and to begin with the pilgrims only at Toulouse.

If the church of S . Sernin was begun in 1080 and consecrated in 1094, the south transept portal should be dated 1090 or thereabouts. Figure 1 shows the lintel and tympanum of the door, with flanking figures of angels on the upper face of the portal, and Figure 2 the south transept portal of S . Isidro at Leon. The


Figure 3.-Leon; S. Isidro; Portal in South Side; Spandrel relation between them is plain. At S. Sernin the finished style of the transept has its earlier stage in the reliefs built up in the walls of the ambulatory-Christ ${ }^{1}$ amid the tetramorph, two angels, and two apostles-which we are compelled to throw back into the third quarter of the eleventh century in order that the

[^74]place for which they were made should be destroyed and the figures, remaining on hand, should be used again in later building.
S. Isidro at Leon is a church with a well attested history. It was dedicated in 1063 by Ferdinand I. It was enlarged from 1101 to 1149 by Alfonso VII, and then reconsecrated. Señor Lampérez would give the apses and transepts, including this Puerta del Perdon, to the time of Ferdinand I and his daughter, and the nave with a


Figure 4.-Soria; S. Juan de Rabaneyra; Apostle larger south doorway to Alfonso VII. There is, however, evidence on the spot for some rebuilding not recorded. Inside, the windows of the first bay are crossed by vaulting shafts; ${ }^{1}$ outside, on the face of the south portal, are built into the wall signs of the Zodiac and other figures from an earlier door in the same position (Fig. 3). The two saints in the spandrels here are less archaic than those on the transept face, but the confused compositions that fill the tympana are much alike and much like those of the Puerta de las Platerias ${ }^{2}$ at Santiago of Compostela.

The south portal of Santiago is dated by an inscription 1078, which probably means that the church was begun in that year. ${ }^{3}$ This, as well as the north portal and a third at the
${ }^{1}$ Cf. Street, Gothic Architecture in Spain, I, p. 158 (new edition).
${ }^{2}$ Figured in Michel, op. cit. II, p. 251.
${ }^{3} \mathrm{Cf}$. the date on the transept of Val-de-Dios in Asturias, 1218, the year in which Master Galtiero began the church on May 18. See Street, op. cit. I, p. 224.
west, destroyed to make way for Master Matthew's Gloria of 1183, is described in a manuscript of $c a .1140$, which constitutes the fourth book of the Codex Compostellana, called " of Pope Calixtus," revised and annotated by Aymery Picaud, a French pilgrim. ${ }^{1}$ The remains of the north door were in their turn removed when Ventura Rodriguez rebuilt that in the eighteenth century, and inserted in and about the south door, wherever there was room.
A great chantier was building Santiago for at least a hundred and thirty years. Bernard, Magister Mirabilis, was at the head of it in 1071. Matthew (who had built the Puenta Cesuri in 1161) was at the head of it in 1168 and was succeeded at the end of that century by his son. It was alive and organic; successive generations of stone-cutters there practised their trade, reinforced by newcomers, criticised and instructed by arriving pilgrims.

The figures of the south porch take one back to Moissac and Toulouse, not only


Figure 5.-S. Salvador de Leire; Apostle on North Buttress of Portal now to S . Sernin but to the figures in the Museum. These, that once stood about the chapter-house of the cathedral of S. Etienne ${ }^{2}$ and the cloister of La Daurade, show, themselves, signs of an art in bright ascend-

[^75] J. Vinson, Paris, Maisonneuf, 1882.
${ }^{2}$ Figured in Michel, op.cit. I, p. 627.
ency throughout the twelfth century. Where, as in Languedoc, so much has perished, we must allow for other pieces than those we know, some more tentative, some more perfect, which would be as likely to supply models to Spain and to the outlying provinces. The school of Toulouse is easily recognized, however far afield, in the legs crossed, the drapery curled at the bottom and seen a little as from below, the parallel, circular folds of drapery tight against the knee above and below, and two or three ways of treating the tresses of hair and beard-sometimes in separate, waved locks, sometimes in a series of loops. Another convention, that of representing the edge of a mantle like a plaited jabot, grows more formal and unreal as it occurs farther from


Figure 6.-S. Salvador de Leire; Tympanum
home, for instance in the church of Souillac (Lot) and in Soria and S. Salvador de Leịre (Spain).

A pair of apostles (Fig. 4) are built into the apses of S. Juan de Rabaneyra, in Soria, behind the altar. The pattern that frames them occurs at S. Antimo in Tuscany-a bit of Cluniac building. The church of S. Juan can hardly have been built earlier than 1170, when Alfonso VIII at his majority dowered the city richly; and it is not named in the list of parishes made for Alfonso the Wise in 1252. - The reliefs look more like Toulouse than the photograph can show, particularly about the hair and beard, and in these forms, in the convention of the drapery, and
in the curious straddling posture, they are paralleled by the figures on the portal of S. Salvador de Leire.

This brings us back to the Way. The convent of S. Salvador lies just over the frontier of Navarre and just up the mountainside from the road between Jaea and Pampeluna. To the kings of Navarre it was court and heart of the realm. By royal generosity Benedictines held it from 1097 to 1236; then Cistercians from 1236 to 1270 and again after 1273. The nave was built after that year, but the portal uses older material in the tympanum, and above and beyond the archivolts. The carving on the archivolts themselves may well be contemporary with the nave; the figures on buttresses and above are bits and scraps used over again:-S.James with staff and book, a group of apostles, Jonah coming out of the whale, two saints on the flanking buttresses, (Fig. 5), the three Maries, the upper half of an angel trumpeting to judgement, etc., even fragments of various pat-


Figure 7.-Santiago de Compostela; South Transept Portal; Figures from Destroyed North Portal terns of interlacing cords. These are very Spanish, but the figures belong with those we have considered; the Maries may be paralleled at S. Gilles, and the single figures are ungrafted shoots from the Toulousan stock. The figures of the tympanum (Fig. 6) were made for a place similar to that they now occupy, and the conventions of hair, drapery and posing are Toulousan still, though provincial in workmanship.

Coming again to the Puerta de las Platerias at Santiago it is easy to see the debt to the ateliers of Languedoc. Plainest in the two ladies of the Zodiac, that Sign of the Lion and Sign of the Ram that M. Bertaux cleverly associated with the slab which survives in the Museum at Toulouse, ${ }^{1}$ it is almost as plain in the scenes from the north portal now built into the flanking walls: the Creation,


Figure 8.-Santiago de Compostela; South Transept Portal; Figures Above Doors (Sign of the Zodiac built into left-hand tympanium) David, the Sacrifice of Isaac, all relating themselves to the work at S. Sernin (Fig. 7). Finally the tall figures across the whole face of the portal above the double doorway may profitably be compared with the apostles from S . Etienne (Fig. 8).

As a matter of comparison, even the apostles of the great twelfth century Gloria (Fig. 9), the western porch, by certain conventions of the drapery and the hair, by crossed legs, by turn of head and hand, go back ultimately to the same great school. ${ }^{2}$ In the architectural conception, on the other hand, and the iconography in places, the narthex looks back to Vézelay, as may be seen by the capital carved with the punishment of the slanderer, and the archivolt with the end of Desire in hell. ${ }^{3}$ Clearly, by this time the chantier of Santiago has grown quitè Spanish, though it has learned from

[^76]France structure, theme, and technique; for the enclosed porch, the Christ of the Apocalypse, the apostles standing about the doorway, the great figure on the central post, are all French motives, but the elders ranged across the archivolts on the radii of the arch, the physical characteristics of the faces, the carving of most of the capitals, are local enough. While the architecture and the idea and the art came across the Pyrenees, yet the types and the disposition and the credit all are Spanish now.

## II

The school of Char- ${ }^{*}$ tres, in its territorial limitations, may be bounded roughly as follows: on the north by Senlis, on the east by S. Loup de Naud, ${ }^{1}$ on the south by Bourges, on the west by Le Mans. Three queens from Chartres appear, notwithstanding, on the jamb shafts at $S$. Maria la Real of Sangüesa (Fig. 10), and three figures of men, not more ruinous but less beautiful, in the corresponding place on the other side. The door itself, jambs and archivolts, is of the


Figure 9.-Santiago de Compostela; West Portal; Figures on Jamb pointed style of the thirteenth century, but the tympanum and the two rows of arcading above belong to another region and probably an earlier date. ${ }^{2}$

Sangüesa lies in Navarre, near to Pampeluna, but from the hill
${ }^{1}$ Figured in Mon. Piot, Vol. XXI.
${ }^{2}$ Figured in Michel, op. cit. II, p. 259.
above the town the view extends into Aragon. "La que nunca falta" is her honorific title. In 1131 Alfonso II, el Batallador, gave to the Knights of S. John of Jerusalem his palace near the bridge and the church of S. Mary which stood in the Patio del Rey-the king's courtyard. That can hardly have been the present edifice or any part of it. The church must have been rebuilt more than once, for it is late tran-


Figure 10--Sangütesa; S. Maria la Real;
Portal; Queens on West Side (Photographed from below a deep basement) sitional work. The portal is on the south side; and below the arcading which crowns it, the spandrels between that and the outer archivolt, the buttress which sustains it on the east, and the wall of a projecting chapel on the west, are all crowded with confused fragments of sculpture left on hand: S. James killing naked barbarians, two or three of the evangelical beasts, some very Lombard lions, a wise virgin with her lamp, and interlacing designs. At the top of this tangle, and in the gaps, fresh grotesque material is inserted. The double arcade across the entire top encloses, in the upper range, Christ in the midst of the tetramorph, angels, and two apostles; eight more of these, or prophets, stand under the arches below. They all suggest the South, not the North, of France, but they do not particularly recall that use of arcades which is characteristic in Poitou and Saintonge. The lion and ox about the feet of Christ are facing the same way, instead of looking both to

Christ; this is the kind of blunder a provincial workman makes, who does not well understand the themes he handles. In the tympanum sits Christ in Judgement (Fig. 11), between four trumpeting angels; the blessed are marshalled in a double row on his right, and the damned on his left leave room for the weighing of souls by S. Michael and their torment in hell. Below, another arcade contains six apostles on each side of a seated Virgin, crowned, with the Child. The Christ has the same gesture as that at Conques, and the bare shoulder, ${ }^{1}$ but the mitre crown of that at Moissac. The arcade, angels, and Doom occur at Cahors but in a riper style. Sr. Lampérez points out that the shafts which carry the jamb-figures do not rise from the pavement but begin


Figure 11.-Sangüesa.-S. Maria La Real; Tympanum
rather high up, showing that the former building lacked shafts. There can be no doubt of the provenance of these figures, and the archivolts carry, in the midst of other matters, fragments of a curious series of the months: December kills a hog, January holds cup and platter; one man holds the sign of the Goat, another that of the Bull, another the waterpots of Aquarius; a mermaid has the two Fishes, and the Twins are knights with triangular shields. The capitals in the nave are some of them storied, of the thirteenth century, and very fine; one of the Epiphany re-
${ }^{1}$ Figured in Baum, Romanesque Architecture in France, pp. 78, 87, and 80 respectively.
calling the destroyed rood-screen at Chartres. M. Bertaux believes that this portal was built all at one time. I cannot agree to that. At Puente la Reina, in the church of Santiago a portal exists which was so built, and the work is all of a piece.

Full of Knights of S. John and of the Temple, of hospitals, lodging houses, lazar houses, Puente la Reina was where the ways met. It was richly endowed in 1146 by Garcia Ramirez,


Figure 12.-Estella; S. Miguel; Portal; Figures on the Left Side who gave the town to the Templars, in 1150 by Sancho the Wise, in 1194 by Sancho the Strong. So late as 1487 the church of El Cru cifijo was not yet finished, though the portal is archaic and barbarous past description. The town made all sorts of provision for all sorts of people, and styles meet and mingle about the doorway of S. James's church. Lombards were there, and you find their lions; eastern workmen, and they left superb lionsphinxes; Frenchmen, and they recorded the stories of Genesis and the Gospel. In the cusped opening of the doorway they cut reliefs, from the Creation to the Fall; in the fine archivolts above, now sadly weather-worn, the Visitation and Epiphany, Herod and the Kings, the Slaughter of the Innocents, the Angel with the Shepherds, the Flight into Egypt. All these towns along the Way are linked together by likenesses. Puente la Reina and Leire have each the Lombard lions and each a lesser portal marked with the chrism; Puente and Estella, each, one
early Gothic portal, and each, jamb-shafts capped with heads; in Sangüesa and in Estella a fourteenth century church shows the Doom and hell-mouth gaping for sinners like a castle gate and drawbridge.
S. Pedro la Rua, at Estella, has a cusped opening to the doorway like those at Puente and at Ciraqui. ${ }^{1}$ The cloister is not French. The church is planned with three niches out of one apse, as at Souillac; now Souillac is a morning's walk from Rocamadour, and Our Lady of Rocamadour had a shrine at Estella.

The town enjoys an amusing history. It was virtually refounded by Sancho Ramirez, who ran the Way of S. James through it, in the teeth of the monks of S. Juan de la Peña.


Figure 13.-Estella; S. Miguel; Tympanum
These, owning a convent some three miles away, were bent on having the Way cross their land for the profit it would bring. The king carried his road through his town, but the monks were too strong, and to appease them he gave them tithes of all the churches therein. Of the history of S. Miguel nothing is known. To right and left of the doorway stand great reliefs: the slaying of the dragon and weighing of the souls (Fig. 12); the angel at the tomb, with the three Maries. Now the motive of weighing the souls does not appear in the Judgement portal at Santiago of Compostela, and is so far from being familiar in

[^77]Spain that D. Pedro Madrazo confesses himself unable to read the significance of the scene here, and Sr . Serrano-Fatigati makes his demonstration at full length. It is purely French. French too is the fine Christ with the tetramorph and S. Mary and S. John in the tympanum (Fig. 13) and the arrangement of figures in the archivolts. Here are ranged in successive orders six angels, ten pairs of kings from the Apocalypse (the other two


Figure 14.-Avila; S. Vicente; West Portal; Figures on North Side pairs are inserted above), a row of prophets, and two rows of legendary saints including S. Martin, S. Vincent, S. Peter, in just such scenes as those at Leon cathedral, avowedly French. Above the doorway on either hand runs a row of apostles, planned, one would think, for some such array as that at Olite, or at S. Sepulcro in this very town, and then supplanted by the angelic figures. Uncertainties and alterations of this sort support the hypothesis of a mixed body of workmen recruited from other workmen on the tramp, no such compact organization as the stone cutters or glaziers of Chartres and
S. Denis. The technique of the work at Estella is probably Spanish,-it offers marked resemblance to that in the cloister of S. Juan de la Peña, the rich mother house in Aragon-but the conception of the splendid unit, tympanum, archivolts and flanking reliefs, is fine French. ${ }^{1}$

[^78]
## III

I left the Way once to show work of Languedoc in Soria; and now I want to show in Avila work of Burgundy-and other places.

Count Raymond of Burgundy in 1090 for the repeopling of Avila fetched ninety French knights, twenty-two masters of piedras taller and twelve of jometria, for the walls. In 1109 the work on the church of S. Vicente was well advanced. The second quarter of the century may serve for the south portal. But Ferdinand I , in 1252 , and his successors after him to the end of the century, granted funds for rebuilding and repairs sorely needed. ${ }^{1}$ M. Enlart has pointed out that the narthex at the west end is very like that at Vézelay, and that the leafage of the archivolts and the sculptures of the tympanum which deal with Dives and Lazarus, while irrelevant here, are taken from $S$. Lazare at Avallon, within three hours'walk


Figure 15.-Avila; S. Vicente; West Portal; Figure on Trumeau of Vézelay. But the apostles on the jambs here (Fig. 14), and the Christ blessing from the central post, I believe to belong to restoration in the second half of the thirteenth century, and to owe something to the Gloria of Santiago. The seated Christ would do better for a S. James (Fig. 15). Two apostles are placed
${ }^{1}$ Street, op. cit. I, p. 254.
against the inner face of the doorjambs proper, as they are in Galicia and are not in Burgundy, and the remainder turn one to another with the same gestures of head and hand as Master Matthew's. The treatment of the drapery about the feet is, however, different; it is reminiscent of Vézelay, ${ }^{1}$ and is very like that of the Annunciation on the south porch.

This south doorway presents a curious collection of statues: on the right hand (Fig.16)


Figure 16.-Avila; S. Vicente; South Portal; Figures on East Side a king seated under the corbel on the face of the door post, and a pair of standing figures, male and female, visibly more archaic. I should suppose them part of the first building. On the left hand a little seated Virgin makes a pendant to the king and the angel annunciant stands beside her; both have been set against the door after it was finished, and the edges still show where their place was dug out. ${ }^{2}$ In style they are intermediate between the standing figures and those of the west portal. This points to the existence of a permanent chantier at Avila, founded when the repeopling was begun, in the time of Alfonso VI, and maintained for the building of the cathedral. Founded by Count Raymond and continued probably by his son Alfonso the Emperor, the cathedral was building through all the thirteenth century. The Count of Burgundy, who

[^79]had imported his first workmen from his own land, would keep up a healthy circulation of intercourse between the two regions, and the developing art would receive from time to time fresher nourishment from the place of its origin. Meanwhile the other current which perpetually circulated, that of pilgrimage to and from Santiago, brings other ideas which, being themselves French at the second and third remove, offer no incongruity. The church of S . Vincent grows, takes up all that comes, stands a complete and splendid whole.

Everywhere in Spain we find, side by side with the great cathedrals built under foreign supervision and by royal patronageToledo, Leon, Seville, Burgos-this art which comes up out of the ground, feeds on whatever is within reach, and becomes in the end purely Spanish. In poor towns and those along the Way, which have no strong individual life, the various elements readily catch the eye; those that wrought came from far and went away again. In places that had a stiller, a more patient and more stable life, like Santiago and Avila, a living school appeared, and whatever it received, it altered into its own likeness. It set thereon its own image and superscription.

Georgiana Goddard King.

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1914.

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## THE DATING OF THE GREAT TEMPLE OF BA‘AL AT PALMYRA

The temple of $\mathrm{Ba}^{\prime}$ al at Palmyra was first described and illustrated in 1753 after the expedition of Wood in 1751. This is, unfortunately, the last work on the subject which approaches completeness. A short discussion of the ruins is found in Architecture and Other Arts by H. C. Butler, pp. 49-51, and a skeleton report of the German expedition excavating at $\mathrm{Ba}^{\text {'albec }}$ was published in the Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts, 1902, pp. 87-124. Of the work of E. Guillaume in Palmyra during the summer of 1895 only a preliminary report has been published by E. Berthone in the Revue des Deux Mondes, CXLII, 1897 (July-August), pp. 374-406.

The oldest parts of the temple ${ }^{1}$ are the cella walls, that run north and south, and the peristyle. ${ }^{2}$ The plan of the cella must have been originally of Greek form. Its proportions are classic, as are those of the peristyle, with eight columns on front and back, and fifteen on the sides. The present form of the cella, with an entrance and windows in the sides and the pronaos and epinaos walled up, is due to an alteration. Had the intention been, at the time the peristyle was built, to provide an entrance at the sides, the columns would not have been so disposed that one stood directly opposite the middle of the cella wall. As it was, when the change was made, one column had to be removed from the flank to provide an entrance which was necessarily "off centre." That this was felt to be a necessity, and was not a choice, is clearly shown by the position of the windows in the

[^80]eastern cella wall. Unhampered by the necessary position of an entrance, they are spaced symmetrically. It may be noted here that the exedrae at either end of the cella, marked A and B in the plan, were not a part of the original plan, and, when introduced, did not serve as "adyta," as Puchstein has asserted. ${ }^{1}$ An examination of the photograph of the American Archaeological Expedition ${ }^{2}$ will show this, for the central compartment is only a vestibule, with side chambers opening out of it. Further examination of the photograph will show the patched and hasty character of the construction. At the sides of the doors the decoration above the pediments of the slender niches is not the same, and above them are placed massive pilaster bases, probably taken from the old west wall of the peribolos when it was rebuilt, in 174 A.d.?, ${ }^{3}$ or else, and this is more probable, during the repairs after the sack by Aurelian in 273. The florid ornamentation of the ceilings of the vestibules also points to a late date for their construction. ${ }^{4}$

Leaving the temple for a moment and turning to the peribolos, we have our first definite evidence for date. The epigraphical evidence for the dating of the peribolos is as follows. For convenience, reference will be made to the inscriptions by number, and they are arranged in chronological order.

No. 1. 10 A. D. $=321$ Seleucid Era. Bilingual, found, with No. 2, on a stone, in the interior of the temenos, by Prince Abamelek Lazarew. Published by M. de Voguë. ${ }^{5}$ The purpose of the stone is not clear. Dr. Littmann has suggested ${ }^{6}$ that it was placed under a niche in the temple wall.

No. 2. 17 A.D. $=328$ Seleucid Era. Bilingual, on same stone as above. ${ }^{7}$

No. 3. 21 A.D. $=333$ Seleucid Era. In situ, on column bracket of temenos portico ${ }^{8}$ published by Euting. ${ }^{9}$

No. 4. 28/29 A.d. $=340$ Seleucid Era. In situ, Palmyrene.

[^81]On bracket of column near north end of eastern portico. Discovered, together with No. 5, by E. Littmann. ${ }^{1}$

No. 5. 70/71 A.D. $=382$ Seleucid Era. ${ }^{2}$ In situ, Bilingual. ${ }^{3}$ On bracket of column, second to the south of No. 3.

No. 6. 142 a.d. $=453$ Seleucid Era. In situ, Greek. On bracket of column in portico, discovered by Wood. ${ }^{4}$

Note A. Puchstein ${ }^{5}$ mentions an unpublished (?) inscription from a bracket in the south stoa of the peribolos, dated 127 A.D.; one of 150 A.D. (also unpublished?) and one of 167 , noted by Wadd. without date. ${ }^{6}$ He also dates the door of the peribolos at 174 A . D. without publishing the inscription. ${ }^{7}$

Note B. Dr. Littmann has mentioned the inscriptions, No. 1 and No. 2 of de Voguë, ${ }^{8}$ as belonging to the temple. ${ }^{9}$ This is incorrect. The description given by de Voguë, "sur une grande colonne isolée au nord du temple du Soleil" and "sur une grande colonne renversée, qui faisait pendante à la précédante, au sud-ouest du temple," do not indicate that these columns were in the temenos. On the contrary they stood at some distance, as is proved by the fact that the Greek text of No. 2, is identical with that of Wood, op. cit. Marmor Palm. XXI, which he found on the isolated column, marked 30 in the plan, Tab. II, at a distance of over a quarter mile from the peribolos. The two columns that bore the inscriptions in question, were those marked 28 and 30, respectively, in the same plan, and, if Wood's plan is trustworthy, were equidistant from the temple itself.

Note C. It has been suggested by Mr. H. C. Butler that there may be reason to believe that Wood was wrong, that de Voguë followed him, and that Dr. Littmann is correct. It is unfortunately impossible to verify this at present.

The Peribolos Wall. The exterior of the peribolos wall ${ }^{10}$ was broken by pilasters, evenly spaced and carrying a complete entablature. Between each of these, on the north, south, and

[^82]east, were windows, crowned by a gable. ${ }^{1}$ The western front was built much higher and the spaces between the pilasters were left quite plain. ${ }^{2}$ This construction was continued on the north and south for about seventy feet. ${ }^{3}$ On the interior of the peribolos the west side has a single colonnade. On the other three sides the portico had a double row of columns. The porch of the entrance at the west had been destroyed before Wood made his drawings. ${ }^{4}$ Of his fourth plate, then, we may only consider the wall, in its entirety, and its decorations.

The interior of the wall, on the north, south, and east, is precisely like the exterior. ${ }^{5}$ That of the western wall, however, and of its continuations on the north and south, has a double row of niches. ${ }^{6}$

The Peribolos Colonnades. It is unfortunate that we have no detailed illustration of the order of the columns on the north, south, and east. Nor can we judge by the analogy of the pilasters on the outside of the wall which was undoubtedly built at the same time. For here again our illustrations fail us, except on a very small scale. ${ }^{7}$ Still even the small photograph shows the severity of the decoration which is carried out in the windows, of trapezoidal form, crowned by gables with raking cornices. ${ }^{8}$ In striking contrast to these are the decorations of the entrance in the west wall, a double row of niches and doors, some with profiled archivolts, conches, and elaborately carved mouldings. ${ }^{9}$ The frieze of the north, south, and east walls, both inside and out, seems to have been smooth. ${ }^{10}$ While this was copied on the exterior of the new west front, ${ }^{11}$ on the interior there was an entablature very characteristic of the middle of the second century. ${ }^{12}$

Puchstein, on the evidence of the inscription numbered 6 above, and the three mentioned in Note A, has admitted that
${ }^{1}$ Wood, op. cit., tab. XII, "B."
${ }^{2}$ Wood, op. cit., tab. I, "C," and tab. IV.
${ }^{3}$ Bonfils, photo. No. 389; Am. Arch. Ex. Photo. No. 437. (Reproduced in Butler, op. cit., p. 51.)
${ }^{4}$ Wood, op. cit., p. 42, description of tab. IV.
${ }^{5}$ Butler, op. cit., p. 51.
${ }^{6}$ Butler, loc. cit., and Wood, op. cit., tab. XIV and XI.
${ }^{7}$ Bonfils, photo. No. 389.
${ }^{8}$ Wood, op. cit., tab. XII, "B."
${ }^{9}$ Wood, op. cit., tab. VI, VII, IX, XI, XIV.
${ }^{10}$ See note 3 above.
${ }^{11}$ See portions of wall each side of entrance; Wood, op. cit., tab. IV.
${ }^{12}$ See discussion of west wall below.
"jedenfalls unter Hadrian schon ein Teil des Peribolos fertig war. ${ }^{1}$ We have besides, inscriptions of 21 A.d., ${ }^{2} 28 / 29$ A.D., ${ }^{3} 70$ / 71 A.D. ${ }^{4}$ These are on consoles that could not have been fastened to the shafts after use in another place, for each is part of the column drum, or rather, a projection from the drum itself, necessarily a part of the colonnade at the time of erection. From time to time, then, as occasion offered, inscriptions were cut and statues were set up.

The peribolos, then, must have been erected not later than the beginning of our era, and most probably at the time when the change in the temple cella was made and a door placed between two columns of the peristyle. For it certainly could not have been built very long before the change in the temple was made so as to have an entrance opposite to the gate in the western side of the court. This assertion is entirely supported by an examination of the details of the alterations of the temple, particularly in the case of the mouldings of the door that was set in the peristyle. The jambs, beginning on the inside, are decorated with three fasciae, each bordered by a fillet. The.inner fascia is carved with a continuous laurel or olive leaf ornament, the next with a grapevine, a large leaf alternating with a huge bunch of grapes. The third has branches of a plant not easily identified. Outside of these comes first, a cyma recta with the leaf and dart, then an egg and dart on an ovolo, and finally an anthemion on a cavetto. ${ }^{5}$

Now such a combination of Greek and Oriental motifs is characteristic of only one architectural period in Syria, the period in which were built the temples at Suwêdā ${ }^{6}$ and those of $\mathrm{Ba}^{6}$ al Samin ${ }^{7}$ and Dūsharā at Sî' $^{\prime} .{ }^{8}$ These are examples from the Haurân, it is true, but it must not be forgotten that after 85 b.c., when the Nabataeans defeated Antiochus XII, they took possession of Damascus and Coele-Syria. Now Palmyra is equally distant from Antioch and from the Haurân; it is therefore not

[^83]surprising to find traces of this southern influence at this time in the midst of all that the city must have drawn from the Syrian capital.

The great door of the Dūsharā temple at $\hat{S i n}^{\prime},{ }^{1}$ almost purely Oriental in its ornament, has just such naturalistic forms as this peristyle door of the temple of $\mathrm{Ba}^{‘}$ al. On the archivolt above the door occurs much the same grapevine motif, and this is found again on the inner jamb of the door of the temple of $\mathrm{Ba}^{\prime}$ al Samin at Sî'. ${ }^{2}$ All this simply confirms my hypothesis that the alterations of the cella of the temple of $\mathrm{Ba}^{\prime}$ al took place at the same time as the building of the peribolos, that is, about the beginning of the first century a.d.

The Temple Cella and Peristyle. Still earlier than the oldest parts of the peribolos are the cella and peristyle of the temple. ${ }^{3}$. The capitals have unfortunately long since lost their decoration. For, as the holes in the bells show, this was of metal, fastened to an inverted, truncated, cone-shaped core. Perhaps this same use of metal occurred in the interior of the temple cella at Djerash, called Bet et-Tai. ${ }^{4}$ The decoration of the entablature is severe for the Hellenistic period. The ornament of the frieze is a succession of garlands held by winged figures. ${ }^{5}$ The proportions of the entablature are very nearly those of the Greek temple of Vesta (?) at Tivoli, together with which they are given below, in comparison with those of the temple of Vespasian at Rome.

| Capital height, | 1.12 | 1.00 | 1.23 |
| :--- | :--- | :--- | :--- |
| Architrave height, | 0.5 | 0.53 | 0.64 |
| Field of frieze height, | 0.5 | 0.66 | 0.7 |
| Cornice height, | 0.62 | 0.6 | 0.8 |
| Entablature height, | 1.7 | 1.7 | 2.2 |

The common unit is the lower diameter.
The frieze about the cella was undecorated, and convex in profile, ${ }^{6}$ as was also the case at Srîr on a monument (116 A.d.) which will be described and illustrated in a forthcoming publication by Mr. H. C. Butler.

[^84]The Western Peribolos Wall and Entrance. The newest part of all the temple precinct, with the exception of the exedrae in the cella, is the western peribolos wall. I have already mentioned, in Note A above, the inscription of 174 A.D. which Puchstein found on the door, but which he does not publish. Certainly the forms and ornaments of the entrance are later than any of those discussed above, and are very similar to others belonging to the latter half of the second century. ${ }^{1}$

The plan ${ }^{2}$ shows a central intercolumniation of 13 feet 4 inches. tI would have been impossible to span this by anything but an arch, as has already been suggested. ${ }^{3}$ This is just what we might expect, considering other examples of arched entablatures in Syria.

Si'
'Atill
Kanawât,
Kanawât, Is-Sanamên, Damascus, Djerash,

Temple of Dūsharā ${ }^{4} 33$ в.c. -20 A.D.
Two temples ${ }^{5}$
Temple of Zeus ${ }^{6}$
Peripteral temple ${ }^{7}$
Tychaion ${ }^{8}$
Propylaea ${ }^{9}$
Propylaea ${ }^{10}$

151 A.D.
Second Century
Second Century
180-192
Antonine
Antonine

Yet the use of the arch, known in Palmyra at least as early as the beginning of the second century, ${ }^{11}$ did not find as ready acceptance and as free use as in the Haurân. The niches at 'Atîl showed

[^85]a round head with a conch, ${ }^{1}$ and at Musmiyeh ${ }^{2}$ a full entablature was carried above the conch; but in the niches of Palmyra a horizontal entablature is carried either above or below the archivolt. ${ }^{3}$

We have unfortunately no figures for the lower diameter of the shafts in the colonnade. The capitals, ${ }^{4}$ however, compare not unfavorably with those from the Olympieion at Athens. ${ }^{5}$ Certainly they are Greek, not Roman, as will be seen by a comparison with those from the temples of Mars Ultor, ${ }^{6}$ Vespasian, ${ }^{7}$ and Castor. ${ }^{8}$ The flat section of the leaves shown in Wood's plate must not be considered. ${ }^{9}$ In the case of the Jupiter temple at Ba'albec, ${ }^{10}$ in the cella capitals, he shows. a similarly flat section which the photographic evidence of Puchstein ${ }^{11}$ contradicts.

It is interesting to recall in this connection, Rivoira's statement about Corinthian capitals in the East, assuming them to be, of course, examples of Roman workmanship. He says: "nei tempi anzidetti (138-193) i migliori capitelli vogliono esser cercati nella Siria." ${ }^{12}$

The frieze above the colonnade has a flat profile ${ }^{13}$; that on the peribolos wall is convex ${ }^{14}$ and is ornamented with acanthus scrolls. Yet, even if it was erected in 174 A.d., the acanthus with stalk completely covered by leaves does not occur, as it does at Rome in the Forum of Trajan, ${ }^{15}$ and later in the "Frontispiece of Nero." ${ }^{16}$ Again in the palmettes of the sima we find the distinc-

[^86]tion from purely Roman types. They have not the leaves, sharply pointed at the ends, that the architecture of the city shows, ${ }^{1}$ as, for example, in the Forum of Trajan ${ }^{2}$ and the baths of Agrippa, ${ }^{3}$ but leaves with their ends rolled over in a flat snail-like form. This is the universal form at Palmyra, and is of very great frequency. ${ }^{4}$

## Summary

We have, then, four periods of architectural activity on the site of the temple of $\mathrm{Ba}^{\text {'al }}$.
I. Not later than end of first century b.c.:-temple cella and peristyle.
II. Not later than 21 .A.D.:-rearrangement of cella; addition of door in peristyle and building of peribolos.
III. 174 A.D. (? $)^{5}$ : - rebuilding of west wall of peribolos. To this, or perhaps to a fourth period under Aurelian, belong the exedrae in the temple cella. The latter are the only remains that can be assigned to this last period. Aurelian's letter to Bassus expressly states that he desired "templum-ad eam for-mam-quae fuit, reddi." ${ }^{6}$ Such repairs as he made then, must have consisted chiefly in setting up what had been thrown down in the sack of the city:

S. B. Murray, Jr.

Wells College,
May $3,1915$.
${ }^{1}$ Studniczka, op. cit., pp. 85, 86.
${ }^{2}$ D'Espouy, pl. 80.
${ }^{3}$ D'Espouy, pl. 75.
${ }^{4}$ On doors, see Wood, op. cit., tab. VIII "B," XII "A," XLVIII; on windows and niches, tab. X " $\mathrm{B}, "$ " C ," XII " B ", L ; on cymatia of cornices, tab. XXIII, XLVI.
${ }^{5}$ See discussion of epigraphical evidence for peribolos.
${ }^{6}$ Vopiscus, Div. Aurelianus, ch. 31.

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## THE ICONOGRAPHY OF THE ASCENSION

The purpose of this paper is two fold: first to trace the development of the iconography of the Ascension from its earliest type through to the Gothic form; and second, to illustrate by means of this development the evolution of Christian art up to the Gothic period, and to show in particular the manner in which the ever-present Oriental influence modified in various ways the types current in western art.

The Feast of the Ascension was not among the earliest established by the Church, nor was it celebrated at first as an independent feast, but generally in conjunction with Pentecost. Early writers such as Origen, Tertullian, and Cyprian mention only Easter and Pentecost. It is only from the end of the fourth century that we find positive reference to the Ascension either as a separate feast-day, or as a part of the Pentecostal celebration. The separate feast-day of the Ascension must have been established between 380 and 430 A.D. The year 380 is the date of the Peregrinatio Etheriae in which a very interesting account of Ascension and Pentecostal celebrations is given; we read in it of the vigils held at Bethlehem forty days after Easter, and of the celebration of Pentecost at Jerusalem on the dies quinquagesimarum, with a separate celebration of the Ascension on the Mount of Olives the afternoon of the same day. The other date, 430, marks the death of Saint Augustine, who describes the Ascension as among the feasts universally observed: "sicut quod Domini passio et resurrectio et ascensio et adventus de caelo Spiritus Sancti anniversaria solemnitate celebrantur et si quid aliud tale occurrerit quod servatur $a b$ universa quacumque se diffundit ecclesia." Roughly speaking then, the end of the fourth century or the beginning of the fifth may be regarded as the time when the Ascension assumed independent significance.

The canonical references to the Ascension are few and brief.

[^87]Only in Mark, Luke and in the Acts of the Apostles do we find definite account of the episode:

Mark, xvi, 19: "So then after the Lord had spoken unto them (the disciples), he was received up into Heaven and sat on the right hand of God."

Luke, xxiv, 50-51: "And he led them out as far as to Bethany, and he lifted up his hands and blessed them. And it came to pass while he blessed them he was parted from them and carried up into heaven, and they worshipped him, etc."

Acts, i, 9-12: "And when he had spoken these things while they beheld he was taken up; and a cloud received him out of their sight. And while they looked steadfastly toward heaven as he went up, behold two men stood by them in white apparel which also said: 'Ye men of Galilee, why stand ye gazing up into heaven? This same Jesus which is taken up from you into heaven shall so come in like manner as ye have seen him go into heaven.'"

In the apocryphal gospel of Nicodemus we find the following references:

First Greek form, xiv: "And while Jesus was speaking to his disciples we saw him taken up into heaven." Ibid. xvi: "While he was yet sitting on the Mount Mamilch and teaching his disciples we saw a cloud overshadow both him and his disciples and the cloud took him up into heaven, and his disciples lay upon their faces upon the earth."

Second Greek form, xiv: ". . . and having thus spoken he went up into heaven." Ibid. xvi: "We saw Jesus alive on the Mount of Olives and going up into heaven."

Latin form, xiv: ". . . We saw him taken up into heaven." Ibid, xvi: ". . . and he went up into heaven and his disciples prayed upon their faces on the ground."

We may trace in these accounts a gradual expansion of the detail given the scene: Mark gives us only the main motif, Luke adds the benediction and the worshipping disciples; Acts speaks of a cloud and "two men in white apparel"; from the apocryphal sources we derive the two motifs of the Mount of Olives and the disciples prostrate on their faces. From the data thus afforded, the artists of the Early Christian period evolved two types for the scene, one of which may be called the Hellenistic type, since it was formed in the final stage of Greco-Roman art, and seemingly reflects in its realistic rendering of the Ascension the material
bias of the Hellenistic mind. In the other type, originated in the Christian East, the unreal and abstract treatment gives the scene a mystic character consistent with Oriental habits of thought.

These two types, the Hellenistic and the Oriental, might also be called the Western and Eastern, since the extant examples of the Hellenistic form have all been found in the western part of the Early Christian world, and the two Ascension-types have already been differentiated under these names by E. B. Smith. ${ }^{1}$ Hellenistic is the better term for the "western" type however; by it we mean the original form in which the scene was cast in East as well as West, a form which was soon supplanted in the East by the Oriental type, but maintained itself for a longer period in the West.

## The Hellenistic Type.

In this form of Ascension Christ is beardless and steps from a mountain into heaven, assisted by the Hand of God which emerges from heaven to draw him up. Below are represented some of the disciples in various attitudes, either gazing up to heaven or prostrate on the ground in fear or prayer.

The first of our examples is an ivory diptych at Munich which Dalton regards as Roman in origin and dating about the end of the fourth century ${ }^{2}$ (Fig. 1). In this ivory Christ is nimbed


Figure 1.-Ivory Diptych in Munich. Fourth Century and beardless and steps from a mountain towards heaven; his right hand is grasped by the Hand of God which issues from the clouds. Two disciples are represented, one prostrate, the other gazing with astonishment at the spectacle.

Another example occurs on the doors of S. Sabina at Rome, in the fifth century (Fig. 2). Here we find the same scene so far as essentials are concerned, though somewhat amplified. Christ is drawn up to heaven from the top of a mountain, while below

[^88]are seen four of his disciples in agitated attitudes. The panel of S. Sabina differs from the Munich ivory in giving the bearded type to Christ, and in the introduction of the three angels, two of whom are engaged in drawing up the Saviour toward heaven, while the third extends his


Figure 2.-Panel of Door of S . Sabina. Fifth Century right hand in the gesture of surprise or speech which is usually given the attendant disciple in scenes representing the miracles of Christ. We shall have occasion to return to this relief for further discussion.

Our next two examples are found on Christian sarcophagi of Provence where the forms of Hellenistic culture maintained themselves even later than in Italy. It is not surprising, therefore, to find the Hellenistic type appearing on these Gallic monuments of the sixth century, although at this period the Christian art of Italy was thoroughly transformed by the new notions introduced from the East. The first of the sarcophagi in question is at Arles. ${ }^{1}$ On this we find an Ascension in which, as in the Munich ivory, the beardless Christ is stepping up to heaven and reaching for the Hand of God which is now effaced; two disciples are represented below, one prostrate and the other gazing upward in surprise. The other example occurs on a fragment at Clermont. This shows us only the figure of Christ, raising his hand and stepping up toward heaven. The disciples must have been

[^89]included in the original composition, to judge from an inscription read upon the sarcophagus by Peiresc: ${ }^{1}$ "Ascensio in coelum, sublatus tamen videtur Christus a manu de caelo veniente, respicientibus discipulis et stratis."

The Hellenistic type may well have been derived from the apotheoses of emperors, such as that found upon a medal of


Figure 3.-Miniature of the Syriac Gospel of Rabula
Constantine, ${ }^{2}$ and on an ivory of the British Museum. ${ }^{3}$ In the former a hand issues from heaven to take up the emperor who

[^90]stands in a quadriga and extends his hand. On the ivory two genii are shown carrying an emperor to heaven; he extends his hand toward a group of gods, two of whom receive him with the same gesture. The concept of these scenes is given literary expression in a line from the Panegyric of Constantius Chlorus: "Receptus est consensu coelitum Jove ipso dextram porrigente." In any case the apotheosis offered a convenient mould in which the Christian artists could fit the data afforded by the canonical or apochryphal accounts of the Ascension, and it seems likely that we have here the ultimate source of the Hellenistic type.

## The Oriental Type

A. The Syrian Form. Of the Oriental Ascensions, the best defined is that which we find to have been current in Syrian art, and is represented by a miniature in the Syriac Gospel in the Laurentiana at Florence, written in Zagba of Mesopotamia by the monk Rabula in the year 586 (Fig. 3). The type here used is quite different from the Hellenistic. In a "mandorla" supported at the top and sides by two angels stands a bearded and nimbed Christ blessing with his right hand and holding a scroll in his left. An additional angel on either side offers a crown to the Redeemer with veiled hands. Below the mandorla are four wings filled with eyes, and from the wings project the heads of an angel, an ox, an eagle, and a lion. Beside the wings are two whirling wheels. A hand issues below the wings and directly over the head of Mary, who stands in attitude of prayer immediately under the mandorla. Beside the Virgin on either side is an angel with a wand. Each of these angels addresses a group of six disciples who point and gaze at the group above. The group on the right is headed by Peter, who carries a cross, while the left-hand group is led by Paul with a book in his hand. In the upper corners of the miniature are busts of the sun and the moon.
B. The Palestinian Type. Derivative from the form which we have just described is one which is represented by the Ascension scene employed to decorate the Monza phials, a series of oil flasks preserved in the treasury of Monza cathedral, and known to have been manufactured in the Holy Land as souvenirs for pilgrims about the end of the sixth century. ${ }^{1}$ This form of Ascension is much like the Syrian, but shows some divergence

[^91](Fig. 4.). Christ instead of standing is seated on a throne, and holds a book in his left hand in place of the scroll. In all but one of the representations on the flasks there are four angels around the mandorla, but all four of them support the mandorla, whereas in the Rabula miniature it was held by two angels and the other two offered crowns. In the one exception there are only two supporting angels. None of the flasks have the wings with eyes and the beasts below the mandorla, and other Syrian features that are absent are the sun and moon and the two angels in the lower group addressing the disciples. In all of these Palestinian representations Mary has the orant gesture and she is represented frontally in all but one, wherein she turns to the left and gazes upward. ${ }^{1}$ Paul is present in every case. In one example ${ }^{2}$ the hand of God issues from below the mandorla as in the Rabula Gospel, but the dove is added below the Hand, and in this particular representation Christ is beardless. In another case ${ }^{3}$ a star is inserted over Mary's head. In all the examples the type follows that of the Rabula Gospel in giving the nimbus only to Christ and the angels, and to Mary.

Another example of this form is found in a drawing in the Royal Library at Windsor


Figure 4.-Phial at Monza. Sixth Century published by E. B. Smith, ${ }^{4}$ which is a copy of an Ascension on a Palestinian encolpium practically identical with one of the representations on the Monza phials. ${ }^{5}$

The Palestinian type may then be characterized as follows: Christ is nimbed, generally bearded, and enthroned in a mandorla supported by two or four angels; he blesses with his right hand and

[^92]holds a book in his left; below stands Mary, nimbed and orant, frontal or in profile, with six disciples on either side of her gazing up and gesticulating. In some cases various symbols appear above the head of Mary.

The search for some explanation for these eastern representations in the liturgies or in biblical or apochryphal accounts has thus far been unrewarded. They do not comply with the canonical descriptions, for these do not mention Mary's presence and make Paul's impossible. The four beasts, the wheels, the wings, the hand, and the sun and moon which appear in the Rabula miniature are equally absent from the canonical sources, being based on the visions of Ezechiel and Revelation. Only one feature of the Rabula Ascension comes from the New Testament accounts, viz., the angels addressing the disciples, which is borrowed from Acts i, 10. All this seems to point to an extracanonical source for the Oriental type, wherein the visions of Ezechiel and the Apocalypse were combined with the canonical accounts of the Ascension. Prototypes in art are also yet to be discovered, but it is natural to suppose that the type became fixed in some of the early mosaics, such as must have decorated Constantine's church of the Ascension on the Mount of Olives. ${ }^{1}$
The Oriental Type in Italy. The introduction of the SyroPalestinian type into the Christian iconography of Italy was inevitable. From the fourth century on, in consequence of the foundation of Constantinople and the institution of the joint empires, the connection of Italy with the East was progressively closer. The finding of the true cross was an event of considerable importance in the orientalizing of Italian Christianity, for it drew the attention of the empire more emphatically to the Holy Land and occasioned pilgrimages from all over the Roman world. Commerce also did its share, and the Monza phials are an example of the importation of objects of art into Italy from the East; we have ample evidence also of the employment of Eastern artists in Italy in the fifth and sixth centuries.

[^93]An excellent example of the transition from the older Hellenistic style of Italy to the new Oriental forms is offered by the wooden doors of S. Sabina at Rome. The types used on these doors are for the most part Hellenistic, but in certain scenes like the Crucifixion, and in the treatment of the architectural backgrounds there are traces of undeniable Syrian influence. The same mixture of strains is found in the two types of Christ which are used on the doors, the beardless Hellenistic type alternating with the Eastern bearded head. .In the Ascension, which we have already described as one of the examples of the Hellenistic type, we find that the Hellenistic form is modified in an Eastern sense by the use of the bearded type of Christ and the introduction of the Syrian angels who assist the Saviour to heaven.
But apart from this orientalizing of the Hellenistic Ascension, we find still further use of Eastern iconography in the actual introduction in one of the panels of a modified form of the Ascension of the Rabula Gospel (Fig. 5). Here we have a beardless Christ standing in a round mandorla with a scroll in his left hand; his right is lifted in benedic-


Figure 5.-Panel of Door of S. Sabina. Fifth Century tion. The scroll bears the letters IXӨYCP. On either side of Christ are the letters Alpha and Omega; at the four corners of the mandorla are the four winged beasts; below we see the sun and moon, on the ground plane stands the orant Virgin, gazing upward at a crossed nimbus or wheel which is held over her head by two apostles. What-
ever the meaning of this curious scene, we certainly have in it an adaptation of the Ascension in the Rabula Gospel, and one which retains its symbolic paraphernalia and chief iconographic peculiarities. The fact that only two apostles are represented is doubtless due to lack of space. The prominence of the Virgin should be noted as well as her gestures; her left hand is raised in adoration, while her right rests on her bosom in modesty.

Another Italian example of the Eastern Ascension is found on one of the ciborium columns of St. Mark's at Venice. ${ }^{1}$ The decoration of these columns is carried around in horizontal bands, and the adaptation of the Ascension to this scheme has given it a somewhat disconnected appearance. Christis beardless and sits enthroned in a mandorla carried by two flying angels. Below the mandorla is an angel's head surrounded with wings, the only survival of the apocalyptic symbols of the Rabula Ascension. The disciples are distributed around the rest of the band in the intercolumniations of an arcade, Peter being given the staff cross of the Rabula type.

In the ninth century the type appears again in a fresco of the lower church of S. Clemente at Rome. ${ }^{2}$ Christ is here again seated in a mandorla borne by angels. Below is the Virgin in a praying attitude, standing on something which is now obliterated. On either side of her on a lower plane stand the two groups of disciples in attitudes betraying great excitement. In view of the late date, we may ascribe to the influence of Carolingian art the exaggerated movement of the disciples, although in other respects the scene is quite faithful to its Syrian prototype.

The Glorification of the Virgin. It is well at this point to call attention to the prominence given to the Virgin in the Eastern Ascensions. She does not appear in any of the Hellenistic examples, but always holds, in the Syrian and Palestinian types, a central position among the disciples, from whom she is also distinguished by the nimbus. In the Rabula miniature we have already noted the hand issuing from the wings directly over her head, and on the Monza phials we find above her a star, the hand of God, and the dove. Garrucci and Stuhlfauth ${ }^{3}$ believe the hand and the dove on one of the Monza phials to be signs of

[^94]the approaching Pentecost. Ficker, Kraus, and Heisenberg ${ }^{1}$ think that the scene is a representation of Pentecost and the Trinity. Heisenburg accepts the hand in the Rabula Gospel as merely part of Ezechiel's vision; but inasmuch as the vision speaks of hands under their wings and as this one hand is in the same position as on the Monza phial, it seems probable that the artist employed this part of the vision as well as the others with a special significance, meaning by it the hand of God. We must admit with Garrucci and Stuhlfauth that the notion of a descent of the Holy Spirit is included, but we cannot agree with Ficker, Kraus, and Heisenberg that the scene is exclusively a Pentecost. For in the Rabula Gospel we find the hand over Mary in the Ascension, and in this manuscript there occurs a separate representation of the Pentecost itself. It seems therefore that while the idea of the pouring out of the Spirit is connected with such scenes, we should see more in them than this. In the nimbus which, with the exception of Christ and the angels, is accorded to Mary alone, in the special symbols over her head-the star, the hand, the dove, the wheel (S. Sabina)-which are all types of the Holy Spirit, and in the prominent central position which is always given her, there emerges an intention to give the scene a subsidiary meaning as a glorification of the Virgin. The cult of the Virgin had an early start in the East and held an important place in Syrian liturgy. It is quite reasonable to suppose that the addition of such attributes as those described above is the reflection in art of a growing cult of the Mother of God. Mariolatry is in any case evidently the inspiration of the scene on the doors of S. Sabina, wherein the two apostles hold the wheel or crossed nimbus over the Virgin's head, and the gesture of her right hand suggests a feeling of modesty at the honor accorded her.

The Oriental Type in Egypt-The Coptic Ascension. The influences from Syria and Palestine not only played an important rôle in the art of Italy from the fifth century on, but also made their way into Egypt. In the sixth and seventh centuries SyroPalestinian iconography dominated Coptic art. Excellent illustration of this is given by the frescoes of the ruined monastery at Bawit, and many of these are particularly pertinent to our subject as being representations or adaptations of the Ascension.

[^95]An apsidal fresco of Chapel XLVI ${ }^{1}$ shows us a bearded Christ enthroned in a mandorla, blessing with his right hand and holding a book in his left. At the lower corners of the mandorla are wings with eyes. Among the wings on the left corner is a lion's head and in the same position at the right the head of an ox. One may conjecture that the composition was completed in the ruined upper half of the dome of the apse by the eagle and man. In the lower band of the apse stands the orant Mary with head turned up to the right, while on either side of her are


Figure 6.-Painting in Chapel XVII at Bawît
grouped the disciples, some standing, others kneeling, and all gesticulating wildly.

In Figure 6 is reproduced another of these niche frescoes of Bawît which has been preserved entire. ${ }^{2}$ A bearded Christ is seated in a mandorla making the gesture of benediction and holding an open book on which is the word äyos thrice inscribed. At each of the corners of the mandorla are wings filled with eyes, and in the middle of these the head of one of the evangelical

[^96]beasts. Wheels appear below the lower wings. Two angels, one on either side of the mandorla, hold crowns in adoration of the Saviour, while between the lower wings and the angels are medallions of the sun and moon. Below is the orant Virgin with seven disciples and local saints on either side. Each figure is nimbed and stands in a frontal attitude, carrying a book in the left arm. The type has become conventional and typically Coptic, with all traces of emotion removed.

In Chapel XLV is another Ascension ${ }^{1}$ with the same type of ascending Christ attended by beasts and wheels. Only the lower part is in good condition. In the lower group five disciples appear on either side; the figures are frontal and of the Coptic type, but one hand is raised, sometimes as if in surprise, sometimes pointing. In place of Mary we find a small leaping figure in Scythian costume whom Clédat calls Ezechiel. ${ }^{2}$

A somewhat different composition is met with in the apse of S. Apollo ${ }^{3}$ and in a fresco of Chapel XLII. In the former we have the usual Palestinian Christ enthroned in a mandorla from the corners of which issue the wings with eyes, each with a head as described below. An angel on either side offers a crown in adoration. Below the lower wings are wheels, and the medallions of the sun and moon appear above the angels' heads. In the lower band are seven hieratic looking disciples and local saints, forming a group on either side, but instead of the orant Virgin we find a Madonna enthroned with the Christ Child on her lap. The disciples are nimbed and carry books as in the fresco of Chapel XLVI. The same composition appears in the fresco of Chapel XLII, save that here the upper part of the figure of Christ and of the mandorla are gone, and the medallions of the sun and moon are placed below the mandorla. The Christ Child, whom Mary holds with her right arm in the apse of S . Apollo, is on her left arm in this fresco.

The significance of the compositions just described lies in the emphasis laid on the Virgin, her importance to the artist having become so great as to obscure her connection with the Ascension itself, as in the case of the introduction of the enthroned Madonna with the Child. The Coptic painter has simply given

[^97]franker expression to the double meaning of the scene which we have already detected in the Syro-Palestinian type.

From the examples just discussed we may characterize the Coptic Ascension of the sixth and seventh centuries as follows: The bearded Christ is enthroned in a mandorla, raising his right hand in benediction, and with his left holding an opened or closed book. At the diagonal corners of the mandorla are wings filled with eyes. In the upper wings are the heads of a man and an eagle; in the lower ones a lion and an ox. Two wheels are visible beneath the lower wings. The sun and moon in medallions appear either above or below the mandorla, on either side of which is an angel bearing a crown in adoration. The upper portion is separated from the lower by a narrow band. In the lower part we find disciples and local saints, generally fourteen in number, seven on either side of the Virgin. In all cases but one these disciples and saints are all alike, i.e. frontal, nimbed, and with dangling feet. They carry a book in the left arm and sometimes lift the right hand in conventional surprise. The Virgin is frontal and orant or enthroned as in the last two examples.

The Syro-Palestinian influence on these Coptic Ascensions is obvious. The upper band, with the exception of the Palestinian enthroned Christ, is adapted entirely from the Rabula type, as is indicated by the two adoring angels, the winged beasts, the wheel, and the sun and moon. The difference is that the two supporting angels at the top of the mandorla are missing, and that the wings and beasts are distributed about the mandorla instead of being grouped beneath it. The lower part of the composition conforms to the Palestinian type in consisting of the Virgin and the disciples minus the angels of the Rabula Ascension. But the Coptic art of the period, with the exception of the fresco in Chapel XLVI, has shown a characteristic distaste for the emotional attitudes and gestures of the Syrian original and transformed the disciples and saints into conventional and hieratic figures. A further change is found in the introduction of local saints beside the disciples and in the more pronounced Mariolatry of the treatment of the Virgin. The Coptic artist thus shows himself less a creator than an eclectic, selecting features from both the Syrian and Palestinian traditions and adding thereto a number of local touches.

The eclectic nature of these Coptic Ascensions is even clearer in the examples found elsewhere in Egypt. On the wooden lintel
over the doors of Mu'allaka ${ }^{1}$ Christ is seated in the mandorla in Palestinian fashion. The condition of the piece makes it difficult to tell whether we have the bearded or beardless type of the Saviour. Two flying angels support the mandorla; in the space between their hands and the mandorla are oval medallions in which Strzygowski sees the heads of the lion and the ox. The Virgin and the disciples are grouped on either side of the mandorla in the intercolumniations of a colonnade quite in the manner of the ciborium column of St. Mark's. The attitudes are varied; the Virgin faces right and raises both arms, the first apostle on either side carries a cross, the second holds a book, the third steps back with his right foot, and the others assume various postures, some raising the hand and looking back, others exhibiting astonishment. The lintel is dated by Strzygowski in the eighth century.

At Deir-es-Suriani in the tenth century we find an Ascension quite like that of the Monza phials, with the addition of the sun and moon. This fresco covers an earlier one in which the staffbearing angels of the Rabula type were used. ${ }^{2}$ This and the other examples of the Coptic Ascensions sufficiently demonstrate the eclectic nature of Coptic art and its large indebtedness to SyroPalestinian iconography, the influence of which, already strong in the sixth and seventh centuries, assumes almost entire domination of Egyptian art in the eighth, ninth, and tenth.

## The Byzantine Type

Byzantine art inherited most of the Syro-Palestinian types, and modified them in the direction of greater realism and fidelity to the canonical or apochryphal accounts. The transformation which the old scenes underwent at the hands of the Byzantine artists is well illustrated by the treatment of the Ascension.

One of the best examples of a really Byzantine Ascension is found in the mosaic dome of Hagia Sophia at Salonica. In the centre of the dome Christ is enthroned on a segment of a circle within a mandorla supported by two flying angels. Below, along the base of the dome, are the figures of the orant Mary flanked by an angel on either side, and the twelve disciples, six on either side. Each figure is separated from the next by an olive tree. Above the heads of Mary and the angels is the

[^98]inscription from Acts i, 10: "Ye men of Galilee, why stand ye gazing up into heaven, etc." The disciples assume various attitudes of amazement. The date of the mosaic has been variously assigned to the seventh, ninth and tenth centuries. ${ }^{1}$

In the church of the Apostles at Constantinople, destroyed in the fifteenth century, there was a representation of the Ascension which is copied in a miniature of a codex in the Vatican Library (Fig. 7). Heisen-


Figure 7.-Copy of Mosaic in the Church of the Apostles, Constantinople. Ninth Century berg dates the mosaic decoration of the church in the sixth century, but Diehl ${ }^{2}$ believes it to have been no earlier than the ninth. In this Ascension the bearded Christ is seated in a mandorla supported by four angels, two at the top and two at the bottom. Below the mandorla stands the Virgin, facing right, with hands upraised. On either side of her are the two groups of the disciples gazing and pointing toward heaven. Beside the Virgin and slightly in the background are the two angels who point up toward Christ while gazing at the same time back toward the disciples. The original mosaic was probably inscribed with the quotation from Acts i, 10 , cited above. In the background are four olive trees.

The Ascension is a fairly common subject on Byzantine ivories. An ivory plaque in Berlin ${ }^{3}$ represents Christ bearded and seated on a segment of a circle within a mandorla supported by four angels. He

[^99]blesses with his right hand and holds a book in his left. Below is the Virgin, facing right, with the six disciples on either side. An olive tree in the background, on either side of the Virgin, gives location to the scene. An ivory formerly in the Carrand collection, and now in the Bargello, ${ }^{1}$ another in the Stroganoff collection, ${ }^{2}$ and one in the Barberini Library at Rome, ${ }^{3}$ are all three decorated with an Ascension which is practically the same as that upon the Berlin plaque. On the Bargello ivory Christ is seated on a globe supported by two angels, while two others fly down toward the disciples and Mary. Between them and the group below is inscribed the verse from Acts i, 10. The mandorla in the case of the Stroganoff ivory is supported by two angels, and above the heads of the lower group is the inscription: + H ANA^HFIC+. The Virgin is frontal in both the Stroganoff and the Barberini examples. The whole group may be dated in the eleventh and twelfth centuries.

An Ascension of the eleventh century is found on the bronze doors of St. Paul's at Rome. ${ }^{4}$ Here Christ is seated on the segment of a circle in a round mandorla supported by two flying angels. Below stands the Virgin in a frontal attitude, with two angels beside her pointing toward heaven and looking back at the disciples grouped on either side. Behind the Virgin are olive trees.

These examples suffice to define the Byzantine type, which may be described as follows:-Christ is bearded and usually seated on a segment of a circle in a mandorla carried by four angels. The Madonna, either in a frontal or profile position, is flanked on either side by an angel who points to heaven and looks back over his shoulder at the disciples grouped behind him. It is to be noted that these angels are absent in the ivories which have been cited. The disciples point and gaze toward heaven. In the background are usually two olive trees to localize the scene on Mt. Olivet, and above the heads of Mary and the disciples the verse from Acts i, 10, is very frequently inscribed.

It is hardly necessary to point out that the Byzantine composition is derived very clearly from the Syro-Palestinian type, of which it is merely an amplification. All the examples which we

[^100]have cited seem to show the Byzantine form in full development, and a proto-Byzantine phase is not to be found, for the Ascension is absent in the illustration of proto-Byzantine monuments like the Rossano Gospel and the Sinope fragment. The upper portion of the composition, i.e., the seated Christ with the two or four supporting angels, is taken from the Palestinian form, except that Christ is seated on the segment of a circle instead of a throne. The lower part is essentially the lower group of the Rabula Ascension plus the olive trees and the inscription. The profile Virgin occurring in some of the examples is paralleled by one of the Monza phials. ${ }^{1}$ It will be noted that the more literal Byzantine artists have omitted the apocalyptic beasts and the sun and moon.

Other examples may be found in the paliotto of Salerno, ${ }^{2}$ the Pala d'oro at Venice, ${ }^{3}$ the carved steatite feasts of Mary at Toledo ${ }^{4}$ and in the Vatopedi monastery on Mt. Athos, ${ }^{5}$ in the carved cedar panels from the church of St. Miriam at Cairo, ${ }^{6}$ now in the British Museum, in the frescoes of Mistra, ${ }^{7}$ in a diptych with the twelve feasts in the South Kensington Museum, ${ }^{8}$ on the bronze doors of the cathedral at Beneventum, ${ }^{9}$ and in a manuscript of the British Museum, ${ }^{10}$ to cite only one of the numerous examples in Byzantine miniature painting to which reference might be made.

## The Carolingian Types

The foregoing account has shown the gradual spread of the Oriental type in the East and Italy up to its final fixation in the Byzantine form. In the West a very interesting evolution took place, the first phase of which can be traced in the monuments of the Carolingian period. The Ascensions of this period may be

[^101]divided into three groups displaying certain differences but in the main closely related.

Examples of Group A are to be found in the Sacramentary of Drogo, in the Bible of St. Paul's, and on the crown of Aix-laChapelle. The first of these is a manuscript written and illustrated during the reign of Louis the Pious, in the middle of the ninth century. ${ }^{1}$ In the Ascension (Fig. 8) which appears in one of the miniatures of this manuscript, Christ is in profile, and is bearded and nimbed. He carries a staff cross over his left shoulder and strides along the top of a mountain, clasping at the same time the hand of God which issues from the heavens. At the foot of the mountain are the disciples as-* sembled in two groups on either side of the Virgin, who is in profile, facing right. Two wand-bearing angels fly down from heaven toward the disciples, extending their right hands.

In the Ascension of the Bible of St. Paul's, ${ }^{2}$ Christ is again nimbed and bearded, and in profile. He strides as before along the top of a mountain and carries the staff cross over his


Figure 8.-Miniature of the Sacramentary of Drogo. Ninth Century left shoulder. His right hand is grasped by the hand of God. The two angels in this case are on the same level with Christ; they bend and gesticulate toward the two groups of disciples on the lower plane. The Virgin faces right and stands with the lefthand group.

One of the medallions of the crown of Aix-la-Chapelle ${ }^{3}$ is decorated with an Ascension which is of the same type, though abbreviated for lack of space. The same type of Christ is used,

[^102]but in this case he carries the staff cross over the right shoulder, and grasps the hand with his left. The lower group is in halffigure; Mary stands with one disciple on the right, and three other disciples are represented to the left. The top of the mountain on which Christ is walking is represented by three oval surfaces like rocks, a peculiarity which will be noticed later.

Group B is illustrated by three ivory book-covers which are closely related in technique as well as in iconography. The first (Fig. 9) is in the Essen treasury, ${ }^{1}$ the second in the Berlin museum, ${ }^{2}$ and the third is in the Musée du Cinquantenaire at Brussels. ${ }^{3}$ The same type of Ascension occurs on all three. Christ, whose back is almost turned to the spectator, steps up from the top of a mountain, and reaches


Figure 9.-Ivory Panel at Essen up to heaven with his right hand. Over the left shoulder he carries a staff cross. Two wand-bearing angels fly down toward the two groups of the Virgin and the disciples. The top of the mountain is formed of the same oval rocks which we have noticed in the crown of Aix-la-Chapelle and the same motif is used in the Crucifixion scene on the ivory of the Musée du Cinquantenaire. As Christ's back is turned, it is impossible to tell whether the artist used the bearded type, but in other respects the Ascension on these ivories conforms to the type used in Group A.

The examples of Group C are an ivory in the Soltikoff collection, ${ }^{4}$ and a devotional ivory tablet ${ }^{5}$ and a cylindrical box ${ }^{6}$ of the same material, both in the South Kensington

[^103]Museum. The main features which are common to the group are: (1) the beardless Christ; (2) the Saviour carrying no cross, but raising his left arm; (3) the disciples in one group; (4) the mountain absent, but Christ represented as drawn up from the midst of the disciples; (5) the Virgin absent, or occupying an inconspicuous position. The Soltikoff ivory alone represents the angels flying down as in Group B (Fig. 10.). In the same ivory and in the devotional tablet only the busts and the craning heads of the disciples are portrayed. On the cylindrical box the figure of Christ is almost obliterated. The group seems to be the product of a provincial school in its poor technique and careless composition. ${ }^{1}$

In the formation of the Ascension type of these Carolingian examples, an interesting process has taken place. The Hellenistic type which we found still current in Gaul in the sixth century, and represented there by the sarcophagi of Arles and Clermont, has in the ninth century been combined with the Oriental form. The Christ who steps up from a mountain and grasps the hand of God is derived from the Hellenistic Ascension. The wand-bearing angels, on the other hand, and the Virgin with her attendant groups of disciples, are importations from Syria. The cross which the Saviour carries is an almost constant


Figure 10.-Ivory in the Soltikoff Collection. Ninth Century attribute of Christ in Coptic art. The Carolingian Ascension is thus a composite form like so many other Carolingian types. The earliest influence to be felt by the mediaeval art of Northern Europe was the Hellenistic, but this began at a very early date to be modified by Eastern influences, the Syro-Egyptian through Provence, and at a later period, the Byzantine along the Danube

[^104]and the Rhine. In the Carolingian period the Syro-Egyptian influences were still being assimilated, and the process of mixture is well illustrated by the Ascension, for there appears to be no settled type. The angels are sometimes omitted, and the arrangement of the lower groups varies from order to confusion. In some examples indigenous taste crops out more strongly, while in others the Eastern influence is almost in control. Hence the variation of the type in the Carolingian monuments, which still however maintain the two constituent elements of the scene at this period, i.e., the Hellenistic ascending Christ and the Eastern lower groups.

The Carolingian type may be summed up as follows:-Christ is sometimes bearded, and sometimes beardless, generally carries a cross over his left shoulder, and is portrayed in profile, or a three-quarters rear view. He reaches up to the hand of God from the top of a mountain, or is drawn up from among the disciples. Two staff-bearing angels either stand on the mountain and bend toward the lower group, or are represented as flying down toward them. No mandorla is used. The figure of the Virgin and those of the disciples form one confused group or are arranged in two, with Mary on the left facing right. All the figures gaze and point heavenward.

## The Ottonian Types.

The Ascensions of the Ottonian period are only developments of the Carolingian types of the ninth century, with further amplification under Eastern influence. The lower group in particular yields to the Eastern sense of order, with a consequent disappearance of the earlier confusion.

## Types of the Tenth Century.

In the Carolingian period we have found two types of Christ, the one bearing a cross as in Groups A and B , and the other without the cross as in Group C. In Groups A and B again, Christ was represented striding along the top of a mountain, while in Group C he rose from the midst of his disciples. In the tenth century Christ's position is high up in the air above the heads of his disciples, but his body is still in profile and his legs assume a walking posture. Both the Carolingian types of the Saviour are found, Christ being sometimes represented with the cross, and at other times with arms outstretched. These


Figure 11.-Mintature in a Manuscript in the Arsenal Library, Paris. Tenth Century
features characterize the tenth century Ascensions in general, but the examples of the first half of the century may be differentiated from those of the latter half by the fact that in the


Figure 12.-Miniature of the Codex Egberti. Tenth Century
earlier group no mandorla is used. This form is illustrated by an Ascension in a manuscript of the Arsenal Library at Paris ${ }^{1}$

[^105](Fig. 11). Christ is here beardless, and has no cross. He seems to be striding along through the air high up above the lower group, and blesses with his right hand. Two angels intervene between the Saviour and the Virgin and disciples below, much in the manner of the Carolingian Ascensions of Group A. The hand of God issues from heaven above the head of Christ. An-


Figure 13.-Miniature of the Benedictional of Aethelwold. Tenth Century
other example of this type of the early tenth century is found on an ivory plaque in the South Kensington Museum. ${ }^{1}$ In this Christ is bearded and carries a cross. He is again represented high up in the air, and the hand appears above him. The lower group resembles that in the preceding example.

[^106]In the Ascensions of the end of the century Christ is surrounded by a mandorla, while the Hellenistic profile is still retained. A good example is found in the Codex Egberti, dating 977-997 (Fig. 12). The beardless Christ is suspended in midair and surrounded by a mandorla. He carries a cross over his left shoulder and reaches to heaven with his right hand, which is grasped by the hand of God. On the summit of the mountain below stand two wand-bearing angels who gaze at the disciples and point toward the Saviour. The disciples and Mary are on a slightly lower plane, Mary being included in the left-hand group and facing right.

In the Benedictional of Aethelwold (Fig. 13), an Anglo-Saxon manuscript dating about 970 , we find an Ascension of about the same description, ${ }^{1}$ but done apparently under stronger Eastern influence. Here we have a bearded


Figure 14.-Miniature of the Psalter of Athelstan. Tenth Century Christ in a mandorla surrounded by four angels, who do not, however, support it. The Virgin stands below between the two groups of disciples. . Her attitude is frontal and orant, but her head is turned up to the right in a manner reminiscent of the fresco in Chapel XLVI at Bawît. The curiously strong Eastern influence manifested in this Anglo-Saxon miniature is even more apparent in another example produced in England about the same time, viz., the Ascension in the so-called Psalter of Athelstan (Fig. 14), where we have almost a repetition of the Byzantine type. Here Christ is beardless, but he sits on a throne in a mandorla supported by two angels. He blesses and holds a book. Below stands the Virgin, frontal and orant, with the two groups of the disciples beside her. Somewhat in the background stand the two pointing angels, whose figures are visible only from the waist up. The artist has indicated the characteristic Byzantine olive trees, and inserted the inscriptions MARIA and VIRI GALITI on either side of Mary.

A number of examples may be added to this group. On an ivory book-cover of the Dresden Library ${ }^{2}$ is found a partial

[^107]replica of the late tenth century type. Christ only is represented; he is bearded and carries a cross. With one hand he reaches up to heaven, and his figure is surrounded by a mandorla. An ivory tablet in the South Kensington ${ }^{1}$ has the complete scene depicted in a crowded manner, with the two pointing angels and the two groups of Mary and the disciples. A manuscript in the Bibliothèque Nationale at Paris shows the other type of Christ, i.e., without the cross. ${ }^{2}$ Here again we have the bearded Christ, stepping up toward heaven and surrounded by the mandorla. The Virgin and the disciples appear below, but no angels are represented. In the Morgan collection of ivories in the Metropolitan Museum at New York ${ }^{3}$ is a small pail for holy water with scenes from the life of Christ. The Ascension (Fig. 15) here is much like the one just described in the omission of the angels and the cross. Christ is beardless, and strides with extended arms toward heaven. He is surrounded by a mandorla. Below on either side are three disciples, the lower group being abbreviated on account of lack of space. The ivory came from


Figure 15.-Panel from Pail for Holy Water, New York Cranenburg.

It is evident that the Hellenistic ascending Christ in profile had reached the height of its development at the end of the tenth century. The rest of the scene was amplified according to Eastern ideas, which found their fullest expression in the Benedictional of Aethelwold, and the Psalter of Athelstan. With the exception of the latter example, however, the Christ in profile maintains itself throughout this phase of the evolution.

## Types of the Eleventh Century

The Ascensions of the tenth century raised the figure of Christ in the air and surrounded him with the mandorla, but kept, as

[^108]we have seen, the Hellenistic profile. It remained for the eleventh century to further orientalize the scene by introducing the frontal Christ. The prototype for the characteristic form of the eleventh century is found in sporadic Ascensions like one in a manuscript of the Arsenal Library at Paris ${ }^{1}$ (Fig. 16), dating in the ninth century. This miniature represents Christ bearded and orant, and standing on a cloud. On either side of him is an angel leaning over and pointing to Mary and the disciples, who have their heads bent back in exaggerated fashion as they gaze at the Saviour. Christ holds what seems to be an olive branch between the thumb and the forefinger


Figure 16.-Miniature of Manuscript in the Arsenal Library, Paris. Ninth Century of his right hand.

The change to the frontal Christ was not a sudden one, and we can trace the gradual disappearance of the Hellenistic profile. A good example of the transition is to be found in an'Ascension in Ms. Lat. 10438 in the Bibliothèque Nationale ${ }^{2}$ (Fig. 17). The style of the manuscript as well as the iconography of the Ascension show that it dates between the Codex Egberti (977-997) and the Bamberg Gospel at Munich (1002-1024), to be mentioned hereafter. In this Ascension Christ is represented in mid-air, frontal, and orant. His bearded head, however, is turned up sidewise toward the hand of God which issues from heaven. The sky is represented by a semicircle fringed with tongues of fire. The usual two groups of disciples are seen below, with Mary on the left, and in the centre of the picture are two enormous angels with long wings, pointing up to Christ and gazing down at the disciples.

From this type it is but a step to the characteristic form of the

[^109]eleventh century with the entirely frontal Christ. Throughout the century there is scarcely any change in the lower groups, but the figure of the Saviour undergoes a well-defined transformation.

At first Christ is beardless and frontal and stands on a cloud; his hands are spread out in an attitude of prayer, the right making


Figure 17.-Miniature of a Manuscript in the Bibliothèque Nationale, ca. 1000
a sign of benediction. There is no mandorla, but a line is drawn across the composition at the level of the Saviour's waist making a kind of screen, apparently a symbolical boundary of the heaven which is conceived to be above and behind it. Two angels appear in half figure above this screen on either side of Christ. Below are the usual two groups, with Mary on the left;
at the head of each group is an angel with enormous wings pointing to heaven and gazing back at the disciples in Syrian and Byzantine fashion. In the centre of the lower plane is a tree which represents the Mount of Olives. The hand of God is absent. This type of Ascension is illustrated by the Bamberg


Figure 18.-Miniature of the Bamberg Gospel. Munich. Eleventh Century

Gospel at Munich ${ }^{1}$ (Fig. 18), and another Gospel in the Library at Bamberg itself, ${ }^{2}$ both dating in the reign of Henry II (10021024). A third example is found in a sacramentary in the Royal Collection at Hanover. ${ }^{3}$

[^110]The second phase of the evolution has the same composition with the addition of rays of light which issue from the cloud on which the Saviour stands, as in the Sacramentary of St. Maximin ${ }^{1}$ (Fig. 19). In the third step Christ stands again on a rayed cloud, but carries a cross in his left hand, as in a manuscript of the Royal Library of Wolfenbüttel ${ }^{2}$ (Fig. 20). There is no reason


Figure 19.-Miniature of Sacramentary of St. Maximin, Paris. Eleventh Century
why this type should not have come into being along with the one we have called the second phase, since the compositions are identical in other respects, and we have seen that the types of Christ with and without the cross were interchangeable throughout the Carolingian period and the tenth century.

[^111]In the fourth stage, Christ is surrounded by a mandorla. In a Gospel at Berlin, another at Utrecht attributed to Bishop Ansfried ${ }^{1}$ and in a sacramentary of Paris ${ }^{2}$ (Fig. 21), we have this type with an orant Christ, while in a manuscript in the Queriniana at Brescia he carries a cross. In the Berlin Gospel we still


Figure 20.-Miniature in Manuscript at Wolfenbëttel. Eleventh Century
have the cloud beneath Christ's feet, but in the other examples this has disappeared. In the Sacramentary of Paris two angels hold the mandorla, a detail omitted in the other members of the group. All retain the horizontal line indicating heaven.

[^112]Codex 340 in the Library of the monastery of St. Gall illustrates the fifth step ${ }^{1}$ (Fig. 22). Here we find the mandorla enclosing Christ, and the added motif of a book in the Saviour's left hand. Beside the mandorla are the gesticulating half-length angels. The division of heaven is retained, and rolling lines representing clouds are added. The lower composition here suffers a change in that the orant Mary is placed in the centre between the two pointing angels. The position given to Mary, and the bearded Saviour holding a book, show the increasing influence of Syrian and Byzantine models, which had already effected the change to the frontal Christ. The Ascension of St. Gall is the nearest to the


Figure 21.-Miniature of Sacramentary of Paris. Eleventh Century

Eastern type of all the examples of the eleventh century. The sixth step, illustrated by Ms. CCXVIII of the Cathedral

[^113]library at Cologne, ${ }^{1}$ shows us Christ holding the cross in his right hand and the book in his left. The two upper angels are in full length and support the mandorla. This type of Ascension is copied in a thirteenth century manuscript in Lord Leicester's collection. ${ }^{2}$ Here, however, the two angels are flying downward with a scroll on which is written in Latin: "He shall come in like manner as ye have seen him go into heaven."


Figure 22.-Miniature of Codex 340, St. Gall. Eleventh Century

The seventh and last stage in the development (Benedictional in the Wallerstein Library at Maihingen near Nordlingen) gives Christ the same attributes as in the type just described, but the lower angels are omitted, while four appear above; two

[^114]are in full length and support the mandorla, while two others are represented in half length in the upper part of the composition.

Another example of this type is found on an ivory plaque forming part of a book-cover in the Hofbibliothek at Munich (No. 34). ${ }^{1}$

## The Banner Type

We have already noted the liking of the artists of Northern Europe for the cross as an attribute of Christ. There can be no doubt that the notion came into Gaul from Egypt, for the cross is a constant attribute of the Saviour in Coptic art and it appears in the same connection on the sarcophagi of Provence. The type was popular again in the eleventh century, as we have seen, and from the frontal Christ carrying the cross there developed a group of Ascensions dating in the end of the eleventh century and the early part of the twelfth which for convenience we will term the "banner group," because the Saviour's cross has a banner attached to it. Examples are found in (1) the Ashburnam Evangelistarium (Fig. 23) at Cambridge, ${ }^{2}$ (2) another at Munich, ${ }^{3}$ (3)


Figure 23.-Miniature of Ashburnham Evangelarium. ca. 1100 a manuscript by Meister Bertolt at Regensburg, ${ }^{4}$ (4) a pericope of St. Ehrentrud at Munich, ${ }^{5}$ and (5) an antiphonary at Salzburg. ${ }^{6}$ In all of these Ascensions Christ is bearded and frontal, carries the banner-cross and is enclosed in a mandorla surrounded by angels, In $1,2,3$, and 5 the

[^115]banner is carried in the left hand; in 4 the Saviour holds it in his right. In 1 and 2 Christ bends slightly to the left and gazes downward, making the sign of benediction with his right hand; the mandorla is filled with stars. In 1,2 , and 3 two angels support the mandorla, at the top in 1 and 2 , at the bottom in 3 . In 4 and 5 there are four angels, two at the bottom and two at the top of the mandorla. In all the examples the two angels of the lower group are omitted. 1, 2, and 4 show the disciples and Mary in bust only. Mary stands to the left in 1, on the right in 2 and 3, and in the centre in 4 and $5 .{ }^{1}$

The essential feature of the Ottonian Ascensions as a whole is the raising of the figure of Christ in mid-air, but we have found that the tenth century still retained the striding figure of Carolingian art, surrounding it with the mandorla, while the eleventh century gives the Saviour a frontal posture, and adds various attributes like the cross, book, and banner. The mandorla is of course an Eastern notion. It is to be noticed that in the Ottonian period the artists concerned themselves chiefly with the upper half of the composition, which up to the eleventh century.still remained Hellenistic in spite of the Oriental amplification which reached its highest point in the Ascension of the Benedictional of Aethelwold. In the eleventh century the upper part was Orientalized as well by the introduction of the frontal type of Christ, arriving at a very close approximation of the Oriental Ascension in Codex 340 of St. Gall, and the Antiphonary of Salzburg. The lower group was already quite Eastern in its Carolingian form in some examples. It becomes regularly so in the tenth and eleventh centuries, although at the end of the Ottonian period, in the "'banner group," the lower angels are omitted. Even the olive trees appear in early eleventh century representations, and it needs only the addition of these, and the enthronement of Christ to make an Ascension of the kind found in the St. Gall manuscript a thoroughly Byzantine conception.

## The Types of the Twelfth Century

The Ascension in Romanesque Sculpture. A comparison of the manuscript Ascensions of the eleventh century which

[^116]we have just been considering with the sculptured Ascensions of the twelfth century reveals the interesting fact that the Romanesque sculptors derived their iconography directly from the later Ottonian miniature painting. In the Ascension represented on one of the capitals of the cloister of St. Trophime at Arles (Fig. 24) we find a bearded Christ standing with both arms raised in a mandorla. About the level of his waist a horizontal line extends on either side of the mandorla, above which stand two angels who bend toward Christ. A group of gesticulating disciples stands below. We have here clearly an adaptation of the type of orant Christ found in the group of manuscripts headed by the Bamberg Gospel, in which the sky is marked by a horizontal line and the angels do not touch the mandorla.

In the Ascension of the north portal of Cahors cathedral, Christ stands in a mandorla, blessing with his right hand and holding a book in his left, as in the miniature of the St. Gall codex. Beside the mandorla on each side is an angel pointing at Christ and looking down at the disciples. At each corner of the mandorla the sculptor has inserted a flying angel, a motif conforming to representations of the late eleventh and early twelfth century as found in the Antiphonary at Salzburg and the Pericope of St. Ehrentrud at Munich. The two pointing angels also resemble these of the eleventh century. The arrangement of the disciples in the intercolumniations of an arcade might be related


Figure 24.-Carving on Capital of Cloisterof St. Trophime, Arles. Twelfth Century to the types we have met in Egypt and in the ciborium columns of St. Mark's, were it not for the fact that this is a treatment so common in Romanesque lintels that it is impossible to ascribe its presence in the Ascension to foreign influence.

The portal of Mauriac ${ }^{1}$ affords an example of an Ascension in which Christ is represented orant in a mandorla flanked on either side by a gesticulating angel. The horizontal sky-line is present, and in the lower plane we have the usual groups with Mary on

[^117]the left. In the centre is a pile of rocks representing the Mount of Olives, of which we have examples in the Carolingian period.

The Byzantine Type in the West. We have already seen that the Ascensions of the eleventh and early twelfth century had closely approximated the Byzantine type, as in the codex of St. Gall. This use of the Byzantine model went so far that actual replicas of the Eastern Ascension can be found, and one of these appears on an ivory of the twelfth century in the Kunstkammer at Dresden. ${ }^{1}$ In this Ascension we find Christ seated on a segment of a circle in a mandorla. On either side of his head are the initials IC; below the mandorla is the verse: EIPHNHN THN ЄMHN $\triangle I \Delta \omega$ MI YMIN EIPHNHN THN ЄMHN AфIHMI YMIN: "My peace I give unto you, etc." In the lower group Mary occupies the centre; she turns to the right and raises her hands. The twelve disciples are depicted in characteristic poses indicative of excitement. Olive trees fill up the background.

Mixed Types of the Twelfth Century. The preceding example shows that the Byzantine type finally succeeded in establishing itself in the West, but it is not to be expected that the well developed types of the ninth and tenth centuries suddenly died out. On the contrary, the older tradition shows itself constantly, though in a sporadic manner, throughout the eleventh and twelfth centuries.

In the Wyschrader Gospel at Prague, ${ }^{2}$ which according to Janitschek ${ }^{3}$ belongs to an advanced period in the eleventh century, we find Christ on the Carolingian mountain with a cross in his left hand, and grasping the hand of God which issues from the clouds of heaven. On either side of him is an angel, and below stand the disciples and Mary. In the foreground are olive trees. The type here used is that of the Sacramentarium of Drogo with the addition of the Byzantine olive trees, which do not appear in Western art before the eleventh century.

A twelfth manuscript in the Stiftsbibliothek at Salzburg ${ }^{4}$ also has an Ascension modelled on the Drogo type. The bearded Christ carries a cross in his left hand (but not over his shoulder), and reaches up to heaven from the top of a mountain. The

[^118]hand of God is absent. An angel on either side of the Saviour flies through the air and points toward him. The Madonna and eleven disciples are seen in bust below.

In a manuscript of the British Museum ${ }^{1}$ we find a curious mixture of the Ascension used in the Benedictional of Aethelwold with the form which we have named the "banner type." Christ stands slightly sidewise, grasping the hand of God with his right hand, and carrying a banner in his left. An adoring angel is on either side of the flaming aureole which surrounds the Saviour. The whole group is enclosed in a circle, from the top of which two angels are flying toward the groups of disciples to right and left, holding each a scroll inscribed with the verse from Acts i, 10. The disciples are grouped to right and left of the circle with Mary on the right side; Peter, who stands with the left hand group, holds a large key. At the lower corners of the circle are olive trees.

On the cover of an ivory reliquary in the Berlin museum ${ }^{2}$ is a very elaborate Ascension of probably provincial origin. The bearded Christ strides up toward heaven, to which he extends both hands. He is surrounded by a mandorla supported at the corners by four angels, beside each of whom appears another holding a scroll and pointing to heaven. Above the mandorla is the hand of God and an angel flying downward on either side. Three angels to the left of the central group, and two to the right, adore the hand with bent knees and veiled hands. Below the mandorla are the two groups of disciples with Mary on the left.

## The Gothic Type

The last phase of the Ascension to be considered is the one prevalent from the end of the twelfth century through the thirteenth, fourteenth, and fifteenth centuries. It is the conception of the scene which was evolved by the French school of Gothic art, and lasted till the breaking up of mediaeval tradition by the Renaissance made the maintenance of a consistent iconography impossible. The type is quite definite; its characteristic feature is the representation of the figure of Christ as disappearing in the upper part of the picture, with his body visible only from the knees or ankles down (Fig. 25). The attitude is frontal,

[^119]and the feet either rest on a cloud or are surrounded by it. In two of the examples to be cited an angel flies downward and touches the foot of the Saviour on either side. The lower part of the composition is quite like the Ascensions of the end of the eleventh century, and consists of Mary and eleven disciples in two groups with the Virgin on the left. The groups are repre-


Figure 25.-Miniature of Psalter in the British Museum. Thirteenth Century
sented either standing, seated, or kneeling. No angels are present at all except in the two cases mentioned. In the fourteenth and fifteenth centuries the mountain is often represented, on which in a few cases the foot-prints of Christ are indicated. A list of examples follows.

Twelfth century-Psalter of Shaftesbury Abbey, ${ }^{1}$ two angels. Thirteenth century-Reliquary of Kaiserwerth; The Salvin Horae; ${ }^{2}$ Glass window in Gladbach monastery church, ${ }^{3}$ in which Christ's body is visible from the waist down, as well as the lower part of his arms; Epistolarium of Giovanni di Gaibana in the treasury of the Duomo at Padua; Psalter in the British Museum ${ }^{4}$ (Fig. 25).

Fourteenth century-Psalter in the Thompson Collection; ${ }^{5}$ Bible in the Royal Library at Stuttgart; ${ }^{6}$ Alabaster relief; ${ }^{7}$ Biblia Pauperum in the Hofbibliothek, Vienna; ${ }^{8}$ Durandi Rationale, ibid. ${ }^{9}$

Fifteenth century-Frescoes in St. Wolfgand near Altheim, ${ }^{10}$ two angels; Alabaster relief, Metropolitan Museum, New York. ${ }^{11}$

The quaint realism of the Gothic Ascension is no doubt due in great measure to the humanizing tendencies which affected Christian art as a whole in the Gothic period, but it owes much also to tradition. The frontal type of Christ without the mandorla seems to come from the representations of the early eleventh century. Even the particular feature of the disappearing Saviour is found already in the Gospel of St. Bernward of Hildesheim, which dates between 1011 and 1014. ${ }^{12}$ In this Ascension, which has not been cited before in this paper, Christ strides along the top of the Mount of Olives, but his body is seen only from the waist down. A combination of the frontal type with this treatment of the figure of the Saviour gives us the Gothic ascending Christ. The lower part of the composition simply continues the lower group of the late eleventh and early twelfth centuries, which the Gothic artists modified by seating the figures in some of the thirteenth century examples, and representing them as kneeling in the fourteenth and fifteenth. The striking adherence to a single type in examples so widely scat-
${ }^{1}$ Landsdowne Ms. 383; Brit. Mus. Reprod. from Ill. Mss., Series II, pl. IX.
${ }^{2}$ No. LXXX in the Thompson Library; Cat. pl. XXVIII.
${ }^{3}$ Clemen, op. cit. III, Kreis Gladbach, p. 32.
${ }^{4}$ Ms. 17868. Warner, op. cit. pl. 25.
${ }^{5}$ No. LVI in the Thompson Library; Cat. pl. XLII.
${ }^{6}$ Vitzthum, Pariser Miniaturmalerei, pl. XXXVII.
${ }^{7}$ Prior and Gardner, Mediaeval Figure Sculpture in England, p. 471.
${ }^{8}$ Cod. 370. Burger, Deutsche Malerei der Renaissance, p. 211.
${ }^{9}$ Cod. 2765. Burger, p. 226.
${ }^{10}$ Burger, p. 197.
${ }^{11}$ Prior and Gardner, op. cit, p. 479.
${ }^{12}$ Beissel, op. cit. pl. 24.
tered as these we have cited from England, France, Germany and Italy, are witness to the control exercised by the Paris schools over the artistic fashions of the Gothic period.

## Summary

The history of the Ascension type in mediaeval art indicates first of all the prevalence of Hellenistic tradition, probably formulated in Alexandria, in the art of Italy of the first four or five centuries of the Christian era, and its survival in the art of Southern Gaul in the sixth. In the fifth century, however, Syro-


Figure 26.-Oliphant Formerly in the Colchen Collection
Palestinian iconography, already dominant in the East, had made itself felt in Italy and was at work in Egypt. From the sixth to the tenth century, Oriental types were the fashion in both of these countries, and by the ninth century we find that Byzantine iconography has evolved its own forms from the same Syro-Palestinian source.

In Northern Europe, Christian art begins its mediaeval phase with the strong Hellenistic predilections which were part of the classic heritage of Gaul. But along the main trade-routes, through Venice and Provence, and up the Danube and the Rhine,
there came the Eastern notions to modify the Hellenistic traditions, and the history of Carolingian and Ottonian iconography is the story of a long struggle for supremacy between these two influences, with the final triumph of the Oriental forms in the twelfth century. The mingling of two widely different elements brought about the production of a variety of types, which became most numerous in the eleventh century. From the wealth of material produced in this period the Romanesque artists chose the models for their scenes, and the Gothic painters and sculptors drew from the same source, although with more discrimination, in their attempt to re-express the abstractions of the earlier age in terms of human life. ${ }^{1}$

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${ }^{1}$ An Ascension of great interest, though somewhat hard to classify in the evolution that we have traced, is found on an ivory oliphant of the former Colchen collection at Metz, which was sold at auction in Paris in 1867 (Cahier, Nouveaux melanges, etc. II, pp. 43 ff ). The scene is reproduced in Figure 26. It shows all the elements of the Syrian and Palestinian types, though theseare amplified in one respect and are arranged in different order. In the central field is a bearded Christ enthroned on a mandorla in Palestinian fashion, and holding a long cross in his left hand. The mandorla is supported by six angels and above it on either side are the medallion busts of the sun and moon. Below stands the praying Virgin, under an arch supported by twisted columns, on either side of which stands an angel holding a staff tipped with a standard.

The portion of the scene above described occupies about half of the space around the horn. On the other half are three vertical bands with six squares in each. Two of these bands are occupied by the portraits in bust of the twelve apostles, but the third contains the hand of God and the representations of the four Evangelists with the peculiar motif of the evangelistic symbol replacing in each case the head of the Evangelist. This rendering is found elsewhere, and seems to be a barbarian notion, being found in the Merovingian Sacramentary of Gellone, and among the altar reliefs of the Baptistery of Parma (Lopez, Il Battistero di Parma, pl. XIII).

All the elements of the scene are those found in the Rabula Ascension, except of course the seated Christ, which is conceived in the Palestinian or Coptic manner. Coptic again is the cross carried by the Saviour, and the conventional busts of the apostles, as well as the general execution of the figures, whose large eyes remind one strongly of Egyptian monuments of the Christian period. It is dangerous to be specific regarding so unusual a monument, but the busts of the Evangelists seem to connect the Ascension with Southern France or Northern Italy.

## Arcbaeologital <br> $\mathfrak{Z n s t i t u t e}$ <br> of $\mathfrak{A m e r i c a}$

## INSCRIPTIONS FROM LOCRIS

On the occasion of a topographical journey through East and West Locris in the summer of 1914, it was my fortune to discover some new inscriptions and to make a few additions and corrections in the case of others that had already been published. It will be convenient to take up both classes according to the order in which the different towns were visited, listing the new inscriptions first. I hope soon to present a discussion of certain topographical questions connected with the region visited. ${ }^{1}$


Bàє (?)[....

1. Upper Larymna. Fragment of an inscribed brick found by myself in the stream bed, the Revma of Larmaes, at the point where the stream begins in a number of copious springs. This is below the northwest corner of the ancient village, and just above the bridge of the railway which leads up to the iron and nickel mines of Neo Kokkino. Dimensions, top 8 cm ., bottom 3 cm ., $\sigma$ length 11.5 cm ., thickness 4 cm . Color bright red. Letters 2.2 cm . in height.
There may possibly have been a letter before $\Sigma$ in line 2 , but I do not think so. The fourth letter in the first line cannot be beta because of the apex at the top, for the beta in the inscription has nothing of the sort. It might be an iota or a gamma, although personal names with these combinations of letters are extremely rare. It is much more likely to be an epsilon, and the whole name was probably Bàéplos, Bàє $\frac{1}{}$ sumably the first. Greek personal names beginning with the syllable $B \alpha \lambda$ are most uncommon, and there can be hardly any doubt that we have here a Latin name of the form suggested above. The fact that Upper Larymna was a Roman settlement

[^120]（Strabo IX，2， 18 ［406C］）makes this suggestion even more plausible．Mr．Robinson calls my attention to Bà́éplos，C．I．G． 3439．Compare also Bàєpiov，Kern，Insch．v．Magn． 119. A number of examples appear of course in I．G．XIV，along with
 and 122 b ．For the literature on Greek inscribed bricks see P． Paris，Élatée，la ville，le temple d＇Athéna Cranaia，pp． 110 ff ．and 318，and the long supplementary list in B．C．H．XXVI（1902）， pp． 336 f．

2．Lower Larymna．A stele of white marble；in the doorway of a private house．In the aetoma is merely a rosette．

ETIITH


In line 1 the last three letters are merely scratched，not chiselled． The stone cutter seems to have made a mistake in starting the name where it ordinarily appears and to have entered the correct copy below the rosettes；or else，as Mr．Moss suggests，the change was necessitated by the faulty alignment of the first letters．

3．Lower Larymna．A stele of white marble with aetoma； on the floor of a rear room in a private house．No rosettes．

> IATYPA
इárvpa

4．Lower Larymna．A stele of white marble with aetoma （broken）；in the wall of a private house．

IEMHNSN

## ${ }^{\prime} \mathrm{I} \sigma \mu \dot{\eta} \nu \omega \nu$

For the extremely rare name compare the Delphic inscription S．G．D．I．2569，14，where Baunack read［＇I］$\sigma \mu \dot{\eta} \nu \omega \nu \mathrm{T}$ т $\mu$ ок $\lambda_{\text {éovs }}$ $\theta \eta \beta a i o s$ although the first letter is wholly effaced and of the second only the top bar is preserved．The appearance of this distinctively Theban name in Larymna supports the statements in Strabo（cited above）and elsewhere，that this city belonged for some time（probably from the third century b．c．onwards） to Boeotia．

5．Lower Larymna．A stele of white marble with aetoma enclosing a simple circle；in the window of a private house．

ПAPW
rosette rosette
Пар⿳亠丷⿵冂⿱一口䒑

This is probably the Locrian form of $\Pi \eta \rho \dot{\omega}$, a name of obscure etymology. Má $\rho \omega \nu$ is well attested, but there is no indication that a final letter has been lost.
6. Martino. A stele of white marble with aetoma; in a private house.

$$
\begin{gathered}
\text { ПAPOE NA } \\
\text { Пa } \rho \theta^{\prime} \varphi a
\end{gathered}
$$

7. Mariino. A large stele of white marble ending in an acanthus; in the east wall of a new mill southeast of Martino at the foot of the hill near the village well.
```
\phiI\O\DeltaE\SigmaIOTE XAIPE
rosette
    rosette
```

Фı入ofé $\sigma \pi о \tau \epsilon \chi a i ̂ \rho \epsilon$
8. Martino. A stele of white marble with aetoma; a little less than a half-mile east of the village in the ruins of the chapel of Hagios Demetrios thrown down by the earthquake of 1894.


The small stroke at the right of the last letter in $b$ may possibly be part of the X of $\chi$ â̂ $\rho$. The closer spacing would be due to the insufficient room left for the word. Judging from the forms of the letters it would seem that $b$ was cut at a much later date than $a$, the incorrect form $\chi \rho \eta \sigma \tau^{\prime}$ pointing likewise to the same conclusion.
9. Martino. A small stele of white marble; in the same place as the preceding.

## OAYMHON <br> Өaúplov

For the rare name compare S.G.D.I. 1717. The shape of the iota is peculiar; I know of no other example.
10. Malesina. A large stele of white marble, 1.6 m . high; in a private house. The churlish proprietors allowed me only a few minutes in which to examine the stone, so that it was impos-
sible to give it a proper cleaning or even to make a revision of the first reading．The kind efforts of Mr．Pappadakis，the Ephor at Thebes，to secure for me a squeeze were likewise unavailing， as neither the village priest nor the schoolmaster was allowed to have access to the stone．Mindful of the fate which sometimes befalls an inscription under such circumstances I have somewhat reluctantly ventured to publish my copy，imperfect though it probably is at some points．

A 「 A $\Theta$ H I T Y X H I

APXONTOE EYकPO
ェYNOY）「Y•MNA
TOE $\triangle$ ETIMOKPATOY CTOYNI
 N゙IKOBOY＾OZTTAPAMNYEYNФOPOZIEI $\Omega N O \Sigma$ APKILEOE $\quad$ NIKEP $\Omega \Sigma \Sigma \Omega T I P I \triangle O Y$ AYKOLM APKOY ONHEIФOPOEAइKAH？ KEPK $\Omega$ NФI＾EOY NKOMH $\triangle H \Sigma$ ETTAфPA

AAYTTOE NKRNOE
MAPKOE ETTAФPA AIBANOEYTHPETHE
$\Sigma \Omega \Sigma \Omega$ N APIETAГOPoY $\triangle A M \Omega N I \Omega T Y P O Y$
AYMOE ФiYZTOY TAPAMONOE EPMEA
TOIZTETTPOГELPAMMENOIEEQHBOIL
NEIKAPXOE KAI N $\Omega \triangle \Omega P E A \Sigma X A P I N$ anadalpetor katerpayann $P$ PION TO＾EГOMENONORPAKIDA工KAOתइ H $\Omega$ NHTTEPIEXEI


бívov ），रv $\mu \nu a \sigma \iota a \rho \chi$ о仑̂ $\nu-$


Zwìhou），ávé $\gamma \rho a \psi a \nu$ Níка $\rho \chi$ оs

$\left.\bar{\Pi} K_{o v i}(\nu \tau) \cos [\Gamma \epsilon i] \tau \omega \nu(?), \Phi \iota \lambda \iota \sigma \tau i \omega \nu\right)$ ，

 ＇О $\nu \dot{\eta} \sigma \tau \mu \sigma s{ }^{\prime} А \sigma \kappa \lambda \eta(\pi \imath) \dot{a}(\delta o) v, \Sigma \omega \tau i \omega \nu$ Eícúxov，

Өєок入иิs（？）$\Sigma \omega \tau i \omega \nu o s,{ }^{\prime} A \rho \tau^{\prime} \epsilon \mu \omega \nu$ Ka入入ímтov，

 Z $\omega \sigma \tau \mu o s \mathrm{Z} \omega \pi i \rho o v, \mathrm{Z} \omega \sigma$ âs $\Sigma \dot{\omega} \sigma o \nu o s$ ，

＇A $\iota \iota(\tau)$ óvıкos $\Delta \iota o \nu(v) \sigma$ iov，Пá $\rho \mu о \nu o s$ E $\dot{\beta} \beta$ ótov，

 Nıкóßou入os Па аá $\mu \nu(o) v, ~ \Sigma u ́ \nu \phi o \rho o s ~ ' I \sigma i \omega \nu o s, ~$ ＂$А \rho к \iota \sigma \sigma о s), ~ N \iota \kappa є ́ \rho \omega s ~ \Sigma \omega \tau \iota \rho i ́ o v$,








30 N $\epsilon i \kappa \alpha \rho \chi$ оs каi ( $\mathrm{B} i) \omega(\nu) \delta \omega \rho \epsilon \hat{a}$ дá $\rho \iota \nu$
 $\tau \grave{\partial}(?) \lambda \epsilon \gamma \dot{\rho} \mu \epsilon \nu$ оу $Ө \omega \rho a \kappa i \delta a s ~ к а \theta \grave{\omega} s$ $\dot{\eta} \dot{\omega} \nu \grave{\eta} \pi \epsilon \rho \iota \in ́ \chi \epsilon \iota$.

All the letters are apicated, and of three different sizes, those of lines 2-7 being intermediate between those of line 1 and the body of the inscription. Theta in the first line has the conventional ornamented bar, elsewhere a simple cross stroke. Omicron is frequently smaller, sometimes markedly so, than the other letters, especially in the combination ov; e. g., $11.3,5,6,7,10$, $12,14,15,17,18,19,20,23,27,28$. Upsilon is frequently higher than other letters, e.g., end of line 7, middle of lines 11 and 12, end of line 15, and again in lines 17-23. Phi and psi are higher than other letters throughout, except in line 2. The right hand stroke of nu is sometimes higher than the line, although not in ligature, e. g., the first letter in line 21 and the tenth in line 22. The ligatures are reproduced with tolerable accuracy in the majuscule copy. Sigma has the top and bottom strokes horizontal and parallel.

It has been necessary to introduce a number of emendations in the proper nouns in order to secure satisfactory forms. This may be due in part to the unfavorable conditions under which the copy was made, but not entirely. There are not wanting evidences of irregularity and error in the stonecutter's own work. Thus in 1.2 the ligature of T and E is clearly a mistake, the E being a correction of a false T; 1.4, Niкapxos, but 1.30, Neíкap才os, of the same person (such variations between $\iota$ and $\epsilon \iota$ are, of course, common in late inscriptions, cf. Фєілократєia No. 19 below-Mr. Robinson calls my attention to the same sort of thing in A.J.A.
 $14,17,19,20, Z \omega \pi \dot{u} \rho o v ; 1.16$, $\Sigma \dot{\omega} \sigma o \nu o s$, alongside of $\Sigma \omega \tau i \omega \nu o s(13)$, 'I $\sigma i \omega \nu o s$ (21), Nikclos (25). These variations are not surprising in what is obviously an inscription of Roman times, when itacism was rife.

Another noteworthy feature of the writing is the singularly large number of omissions of short (generally unaccented) vowels in the medial syllables of the proper nouns. To emend them all would, I feel, be to alter without warrant the peculiar character of a late linguistic document. The ordinary name Пaрá $\mu$ ovos appears three times ( 15 bis , and 28), but חáppovos appears also three times (17, 18, 20), and Mapáa 10 ov twice (10, 21). To get consistency here one would have to emend five or six out of a total of eight examples, which would be preposterous. And if these forms may stand, then one should not emend ' $А \sigma \kappa \lambda \eta \pi i \delta o v$ or Káß $\rho \iota \chi o s$ or the others, however strange these forms may appear. In the case of חafá $\mu$ ovos it seems very likely that the actual pronunciation of the nominative was Mápuovos (three out of four instances appearing in that form), while the genitive was probably pronounced Mapá $\mu \nu o v$, the variations, as usually, indicating actual usage, the regularities being due to the mere force of custom. For the literature on the dropping out of a short vowel in inscriptions and papyri, cf. Mayser, Gramm. d. griech. Pap., pp. 146 ff.

The key to the meaning of the somewhat perplexing introduction lies in the new word áv ${ }^{2} \iota \gamma v \mu \nu a \sigma \iota a \rho \chi o \hat{v} \nu \tau o s$. Its only natural meaning is "succeed in the office of gymnasiarch," as $\dot{i \pi o}$ is used with both noun and verb for the relation of under-gymnasiarch. On this understanding, Timocrates, leaving the office vacant before the expiration of his term (we have no means of telling how long it was in Locris), was succeeded by Zoilus. As for Nicarchus and Bion, they are not ephebi, nor do they hold any office, so that they seem to be acting in a private capacity, performing a duty or a service which might have been expected to belong elsewhere. Where that was, is not far to seek; the name of the gymnasiarch's father was Nicarchus also, and, on the principle of the alternating name, as Mr. Pease first suggested to me, it seems quite clear that Nicarchus and Bion are sons of Timocrates and grandsons of the first Nicarchus. In that case they are performing quite naturally a service for their father. The phrase roùs rô̂ $\pi a \tau \rho o ̀ s ~ \epsilon ́ \phi \grave{\eta} \beta o u s$ (7) must accordingly mean "their father's ephebi," i.e., those who were trained in part under his supervision. I was at one time inclined to take the phrase in the sense "each ephebus with his father's name" (cf. the ephebic inscription Dittenberger, Syll. ${ }^{2} 463,120$, тоӥvoua ${ }^{\text {é }} \boldsymbol{\pi}$ l $\pi a \tau \rho \dot{s} . .$. ध́ $\xi \circ \nu o \mu a i v o \nu \tau \epsilon s)$, as all the names for which this desig-
nation is appropriate are so given (see below), but apart from the doubt as to the possibility that the Greek could mean that, the interpretation given above is more plausible. Mr. Robinson's tentative suggestion that the words might mean "the fellow ephebi of their father," is unlikely if the father in question was the gymnasiarch; if he was not the gymnasiarch, then he remains nameless, a singular circumstance supposing the inscription to be partly at least in his honor, while there seems no point in so carefully dating it if it were to refer back a generation, or indeed in erecting it at all after such a lapse of time. On the other hand it is natural to suppose that Timocrates died in office, and as neither the ephebi nor the state would be very likely to honor with inscriptionąl record a man who had died prematurely, while another was actually performing his regular duties, the two sons of Timocrates, pietatis causa, took upon themselves the erection of the record. This seems the most natural explanation of what are obviously unique conditions in ephebic inscriptions. That ephebi might be listed as "of a certain gymnasiarch" ( $\tau o$ is тov̂ $\pi a \tau \rho o ̀ s ~ \dot{\epsilon} \phi \dot{\eta} \beta o u s)$ is clear from such an inscription as that at Teos (LeBas, III, 1558) oi $\notin \phi \eta \beta o \iota ~ o i ~ \dot{~} \pi \grave{̀} \grave{\gamma} \gamma \mu \nu a \sigma i a \rho \chi o \nu$, and those in which that officer is styled $\gamma v \mu \nu a \sigma i a \rho \chi o s ~ \tau \hat{\omega} \nu \dot{\epsilon} \phi \dot{\eta} \beta \omega \nu$, cited by Oehler, in Pauly-Wissowa, Real-encyclopädie, VII, 1978. All the ephebi have their father's names given, ${ }^{1}$ except the very first one, in whose case, with a full Roman name it was perhaps unnecessary, and the second one mentioned in line 26. The young man sipavos was clearly a freedman, and so had no father legally speaking, while the cognomen ' $\Upsilon \pi \eta \rho \epsilon$ '́ $\tau \eta$ s serves to distinguish him sufficiently. The same is true of the youth mentioned in the codicil. He also was of servile extraction (if the emendation

[^121]Nшрıкод be correct），and the cognomen Owpaкioas takes the place of ordinary appellation．

1．6．à $\boldsymbol{\nu}^{\prime} \gamma \rho a \nLeftarrow a \nu$ ，terminus technicus．
1．7．The single upright stroke after $\Omega$ is probably part of the letter N．

1．8． $\bar{\Pi}$ is of course for $\Pi$ ó $\pi \lambda \iota o s$ or חoú $\pi \lambda \iota o s$ ．The reading Koviv（ $\tau \iota$ ）os I owe to Mr．Robinson．

1．10．Ka入入ótov I cannot parallel，and there may be some mistake．If retained I presume it must be explained as a unique variation on the stem Ka入入－of ка́入入os．Or possibly it might be a shortened form of Kà入óo $\sigma \rho a \tau o s$ cited by Mionnet，II，72，from Corcyra．
l．10．חapd $\mu \nu 0 v$ which appears also in 1.21 is clearly a vari－ ant of Ma á $\mu o v o s$, although I do not find this form elsewhere． Compare the introductory note．
 who suggests that the oversize upsilon may stand for ov，as，in－ deed，it appears to do in Mapá $\mu \nu o v, 1.21$ ．On the other hand there seems to have been space enough in this instance for a small omicron，of the kind which appears frequently elsewhere in this inscription（compare the introductory note above），that was illegible．
l．13．Mr．Robinson suggests that $\Theta \epsilon \sigma \kappa \lambda \hat{s}$ may be a short－ ened form for $\Theta$ є́кклvzos，and I am inclined to agree with him． If，however，an emendation be thought necessary，$\theta \epsilon o \kappa \lambda \hat{\eta} s$ or $\theta^{\prime}$ oклоs should be read，preferably the former，as it is the commoner form，and in this period $\eta$ and $v$ are easily confused．
l．15．חр८бкi $\omega \nu$ would fill the space quite as well，but the letter forms are not so similar to the copy．Поıvív Mr．Rob－ inson suggests as another possibility，and though the form does not seem to appear elsewhere，in view of $\Pi \rho i \nu \eta s$ and $\Pi \rho i v i o \eta s$ it may be correct．

1．16．On the forms $\mathrm{Z} \omega \pi i \rho o v$ and $\Sigma \dot{\omega} \sigma o \nu o s$ see the introduc－ tory note．

1．17．The form Máppovos，appearing also in ll． 18 and 20 ， is obviously a variant of Mapáuovos，which also occurs 11． 15 bis， 28 ，although I do not happen to find this form used elsewhere． Compare the introductory note．

1．18．Ev̉ßotos，although I do not find it elsewhere，is cor－ rectly formed，and the adjective $\epsilon^{*}$ ßoros is in good usage．Com－ pare also Eípíßozos，Фı入óßozos，etc．Mr．Robinson is inclined to
think that omicron is here used for omega，and that the name is properly Eỉßஸ́ras．

1．19．Káßpıxos is obviously the ordinary Kaßipıxos，see intro－ ductory note．In addition to the examples cited in Pape－Ben－ seler，Mr．Robinson refers to I．G．II，975；VII， 2294 and 2589. Of these VII，2294，$K a \beta i \rho(\imath) \chi \epsilon$ ，is interesting as an example of the more usual form of dropping out a short vowel，i．e．，in an unaccented short syllable when the same vowel appears in a neighboring syllable（Kretzschmer＇s law）．

1．21．For Парá $\mu \nu o v$ see note on 1． 10.
1．23．The form＇Aбк入 ${ }^{\prime} \pi i \delta o v$ appears also I．G．II，985，E，II， 57．Mr．Robinson calls my attention to his note on a couple of similar examples of 七七for ıa in A．J．A．1906，p． 429.

1．24．The N $\iota$ in Niкон $\dot{\delta} \eta$ s and in Niкcros，1．25，is cut in ligature．－For K＇$\rho \kappa \omega \nu$ ，which is obviously $\mathrm{K}_{\epsilon} \rho \kappa i \omega \nu$ ，see the introductory note．Kєөкi $\omega \nu$ appears also I．G．IX，2， 1079 and the Exc．de Sent． 257 M（＝Eunapius 10，Boissevain）．

1．26．＇$\Upsilon \pi \eta \rho$ ér $\eta$ s I take as a cognomen on the authority of C．I．L．VI，9745，L．Ciarti Hyperetis．A similar use of a cogno－ men appears in 1． 32 Owpakioas．Libanos was obviously a freedman（compare，e．g．，I．G．IX，1，314，$\sigma \hat{\omega} \mu a$ áv $\nu \rho \hat{\rho} \circ \nu$ ，oi övvua Líßavos，$\gamma$＇́́vos＂A $\rho a \beta a$ ），and thus，being legally without right to a father＇s name，is designated by a cognomen，exactly as is Noricus（？）below（1．31）．Mr．Robinson suggests that the whole line may be a Roman name，＂Marcus Libanus，or Libanius， son of Epaphras，＂also，somewhat doubtfully，taking 〒חHPETHS as＂a title（？）．＂This latter word may indeed be a title，as it was used for several secular and religious offices in late Greek （see Du Cange and Sophocles s．v．），and in a great variety of connections in classical times，the $\dot{v} \pi \eta \rho \dot{\epsilon} \tau \eta s$ of the Amphictyonic Hieromnemones especially holding what was clearly an office of considerable distinction（see S．G．D．I．2520， 4 ff ．），but I do not regard this suggestion as very probable，partly because of the foreign name $\Lambda i \beta a v o s$, and partly because of the singular position in which the father＇s name would stand to the son＇s，coming as it would after the praenomen instead of the nomen，as is the regular Latin usage．

1．28．$\phi \wedge Y ミ T O Y$ can hardly be correct．Perhaps $\Phi \iota \lambda$ úatou （i．e．，Фı入iotov，with a confusion between $\iota$ and $v$ ）was intended． This was my first view，and Mr．Robinson is also inclined to regard it as the more probable；however，I should now prefer
to accept his alternative suggestion that Фavozov should be read, both because it involves a smaller change, and because the son's name, Aûdós, is also Latin.

1. 30. $(\mathrm{B} i) \omega(\nu)$ is a secondary emendation from 1. 7 above. The phrase $\delta \omega \rho \in a ̂ s ~ \chi^{\prime} \rho \iota \nu$ I do not find elsewhere, but it seems to mean "for the sake of a gift," or "by way of a gift," i.e. "as a gift." The adjective á áaфaı $\rho^{\prime}$ є́ov serves to indicate that this enrollment among the ephebi was a service or a recognition which could not be called in question or taken away as other gifts might be. For the word, compare I.G. VII, 2808, 18,
 of this codicil to the remainder of the inscription is uncertain. I should conjecture that Noricus(?) had been one of the ephebi while Timocrates was gymnasiarch, but that Timocrates' successor Zoilus had for some reason stricken his name from the list, possibly because of his servile extraction and doubtful status. Now as the regular list of those who had been approved and had completed the course as ephebi could ke only that which Zoilus prepared at the end of the period of training, Noricus (?) could not be entered at all except in this irregular way. Nicarchus and Bion, having no official status, can only have his name added unofficially to the legally certified list, but it is probable that in so doing they are following a precedent set by their father. The unusual and vigorous language of the codicil suggests that the act recorded was involved in controversy.
1. 31. N $\omega \rho \iota \kappa o ́ v$ may be meant, as a Danubian tribe name, although I have hesitated to emend. The name is appropriate for a manumitted slave as it would appear from the last line that the youth must have been. Mr. Fowler suggests that in this and the next line one emend to $N \dot{\omega}(\beta) \iota o \nu$ (i.e. Novium) $\tau \dot{\partial}[\nu] \lambda \epsilon \gamma \dot{o} \mu \epsilon \nu \circ \nu$ $\theta \omega \rho a \kappa i \delta a(\nu)$. This is good Greek, even if it does involve a number of emendations, and is quite possibly correct, although I have not ventured to change my own copy, imperfect as that may very well be under the circumstances, for my readings are not entirely indefensible, however unusual the usages may be. As regards $\mathrm{N} \dot{\omega}(\beta) \iota \circ \nu$, the name though rare (I find no examples of it in Greek) is not inappropriate in view of the well-known libertus of Horace (Ser. I, 6, 40 f . and Porphyrio), but it is not quite so suggestive of servile origin às Noricus, and besides has a false quantity in the first syllable. Of course this is no insuperable diffiulty, yet $\omega$ for $o$, as is well known, is a much rarer error than
o for $\omega$ (see Eckinger, Die Orthographie lateinischer Wörter in griechischen Inschriften, München [no date], pp. 51 ff.). Finally the nickname $\Theta \omega \rho a \kappa i \delta a s ~ m i g h t ~ p o s s i b l y ~ b e ~ r e g a r d e d ~ a s ~ m o r e ~$ appropriate for a slave named "Noricus," i.e., a lad from the land of sword-steel and heavy fighting.
1. 32. This is a singular use of $\tau \dot{\text { o }} \lambda \epsilon \gamma \dot{\partial} \mu \epsilon \nu=\nu$ in the sense of "who is also called," the familiar $\delta$ каi or $\delta$ кадои́ $\mu \in \nu o s$, or $\dot{\epsilon} \pi i \kappa \lambda \eta \nu$ of papyri and inscriptions, and I find no other instance of it, even in the many hundreds of double names which Lambertz has collected in Glotta, vols. IV and V. The closest is $\delta \lambda \epsilon \gamma \dot{\delta} \mu \epsilon \nu$ os (Coloss. IV, 11), but that is a very different thing. ${ }^{1}$ Nevertheless the $\tau \dot{\grave{\prime}} \lambda_{\epsilon \gamma \dot{\prime} \mu \epsilon \nu o \nu}$ of classical usage and the $\tau \dot{o} \delta \dot{\eta} \lambda \epsilon \gamma \dot{\rho} \mu \epsilon \nu \circ \nu$ of modern Greek are close enough to make the meaning quite clear. Mr. Robinson refers me to his note on the literature of the subject of the double name in A.J.A.1914, p. 67. Mr. Fowler's suggestion, $\tau \dot{o}[\nu]$, makes things regular, and may be correct, but it practically necessitates another emendation, $Ө \omega \rho a \kappa i \delta \alpha \nu$, so I have not ventured to introduce it in the text.
1. 32. I do not find $\Theta \omega \rho a \kappa i \delta a s ~ e l s e w h e r e, ~ b u t ~ n a m e s ~ f r o m ~$ pieces of armor are common enough, Kuvéas, Z̈ıíios, Maxaıpés,
 so there can be no objection to it in principle. Besides $\theta \hat{\omega} \rho a \xi$ occurs occasionally as a personal name, and once at least as a cognomen (Lambertz, Glotta, IV, 104), Douvîvos ôs каi $\theta \hat{\omega} \rho a \xi$ (Audollent). Of course one should have had the accusative case here, but the anacoluthon is a not unnatural one if $\tau \dot{\delta} \lambda \epsilon \gamma \dot{o} \mu \epsilon \nu \nu_{\nu}$ in the sense of "as he is commonly known" be retained. Strict concord is frequently broken in late Greek, inscriptions, papyri, and the N. T. Compare the excellent statements and citation of literature in Moulton, A Grammar of New Testament Greek, I Prolegomena, pp. 59 f. and Robertson, A Grammar of the Greek New Testament, pp. 413 ff . The particular phrases which introduce the second name were prolific sources of grammatical discord, e.g., such a combination as Firmiae Philologidi quae et Iuliae (C.I.L. VI, 15053) being relatively common. See the by no means exhaustive (add VI, 15019, 7468, XIV, 967, etc.) list of irregular qui et constructions gathered by Lejay some years ago in Rev. de Philol. 1892, pp. 29 f. Compare also the following

[^122]

 K $\omega$ фóv, V, 111 (рар.).

1. 33. The $\omega \nu \dot{\eta}$ is most likely the deed of sale to a god by which the slave was manumitted. I take the phrase as modify-
 other name, $\theta \omega$ рaкi $\delta a s$, is mentioned in the deed of sale. For $\pi \epsilon \rho(\dot{\epsilon} \chi \epsilon \iota \nu$, a terminus technicus, used of the contents of a document, compare such an example as Dittenberger, Syll. ${ }^{2}$ 655, 10,
 note, Beitr. z. griech. Inschriftenk., p. 179. The whole sentence, then, if interpreted as above, would mean: "In addition to the ephebi listed above, Nicarchus and Bion as an inalienable privilege enrolled Noricus who is also called Thorakidas according to the terms of his manumission edict."

I could learn nothing of the provenance of the inscription, but from the large number of ephebi mentioned it must have come from a place of considerable size, possibly Opus itself, which is only a few miles away, where (i.e., at Atalante) a number of ephebic dedications have been found.
11. Atalante. Grave relief of white marble representing a young man standing erect clad in an himation, with a boy at his side; in the school. The schoolmaster was out of town and I could find no one who could tell where the relief was found. It is probable, however, that this and the next two stones come from Atalante itself. Above the relief is cut the inscription.

## ArKOE AYTONOMOT XAIPE

$$
\text { ムúкos Aúrovó } \mu \text { оv } \mid \text { хаî } \rho \epsilon .
$$

The letters are all apicated.
12. Atalante. Statue base of marble, broken off on the right side; in the school. This is probably a companion piece to the statue the inscription on whose base is published I.G. IX, 1, 285 ; the supplements have been made accordingly.

> OIQI^OГYMNALTAI
> ^EYKIONA^^IONTAY
> KAIEYEPIESIALT




1. 2. There is some doubt as to the appropriateness of the
 is unknown. They appear in another Locrian inscription, from Martino, I.G. VII, 4165. The name is apparently restricted to Locris, and represents unquestionably an athletic club of the $\nu \in o i$. See P. Girard in Daremberg and Saglio, II, 1, 636, and Poland, Geschichte des griechischen Vereinswesens (1909), pp. 103 ff., especially p. 105. The letters are all apicated.
1. Atalante. A block of marble, broken off on the right side; in a house wall so high above the ground that it was necessary to use a ladder in a very inconvenient position in order to make the copy.

> ГENEISEPAZTRNKAIT
> ^EYKIOSAAAIOETAYPOC
> KATEPOIZTOIZГYMNAEI
> EミH工 $\triangle \Omega P E A N M O N O ~$ ANKAITOETIKAMTIONEK

```
-\gamma\epsilon\nu\epsilon\iotas (?) '̇ра\sigma\tau\tau\hat{\nu}\mathrm{ каi т . . . . . . . . . . . . . . . . }
    \Lambda\epsilonúкıos "A\lambda\lambdaıos Taṽ\rhoos [ò \gammav\mu\nua\sigmaia\rho\chios . . . .
    ка̉\tau\epsiloń\rhoo\iotas \tauoîs \gammav\mu\nuа\sigma\iota[\omegaं\tauа\iotas . . . . . . . . . . . .
    \epsilon่\xi \etās \delta\omega\rho\epsilonа̀̀\nu \muó\nuo [s . . . . . . . . . . . . . . . . . . .
-a\nu(?)каi \tauò ध́\pi\iotaка́\mu\pi\iotao\nu ध́к
```

The inscription probably recorded a list of services rendered by the popular gymnasiarch, Lucius Allius Taurus, for which he was to receive some honor. He is mentioned in I.G. IX, 1., 285, probably in 284, and in No. 12 above. The letters are all apicated.

1. 3. катєроьs I take to be for каі '̇т'єоos without the ordinary change to the aspirate.
1. 4. Or possibly $\left.\begin{array}{c} \\ \xi\end{array}\right)$.
1. 5. The $\dot{\epsilon} \pi \iota \kappa \alpha \mu \pi \iota \circ \nu$ was an angle or corner of a building; porch, or walk. It is mentioned in connection with a gymnasium in an inscription from Eretria, A.J.A. 1896, pp. 173 ff., 1.35; compare the passages cited in the note by the editors. Dittenberger, Syll. ${ }^{2}$, 935, also publishes the inscription, but without adding anything of consequence on this word.

14．Kalapodi（Cleonae）．A large block of dark limestone， whose original function is not clear；in a small roadside chapel of Hag．Apostoli，about ten minutes east of the town．A passer by said he thought the stone had been found between the chapel and the town，where some ancient remains are，in fact；to be seen．The break on the right side has carried away part of the final letter．There are no apices．

$$
\begin{gathered}
\mathrm{K} \wedge \mathrm{E} \Omega \mathrm{NE} \\
\mathrm{~K} \lambda \epsilon \circ \nu^{\prime} \in[\omega \nu] \text { or } \mathrm{K} \lambda \epsilon \rho \nu \epsilon[\hat{\imath s}]
\end{gathered}
$$

Topographical questions connected with this inscription I expect to discuss in another connexion．

15．Kalapodi（Cleonae）．A marble statue base serving as the support of a post in a wretched hut in the village．The post covers the whole inscription except the following letters，all of which are apicated：

## OEIOTATON

## Өєıótatov

16．Kalapodi（Cleonae）．A fragment of a stele of white marble inscribed on both sides；found in a stable in the village．One side（a）has been prepared for an inscription，and the lines and letters are regular；the other side（b）is slightly convex and some－ what rough，the letters are less regular and the lines somewhat crowded．Probably inscription（b）was added after（a）had been already set up．


We have here probably manumission edicts，as may be inferred from the mention of a god，$b 3$ ，from the endings $-\tau \omega, a 5, b 5$ ， which can hardly be anything but the third person of the impera－ tive so common in such decrees，and finally from the certain restoration［ $\mu \dot{\alpha} \rho \tau] v \rho \epsilon s, b 6 / 7$ ．The word vó $\mu o v, b 2$ ，also agrees well with this interpretation．But the fragment is very small， and the length of lines unknown，so that I have not ventured upon any thoroughgoing supplements．
l．3．Apollo was worshipped at Hyampolis（I．G．IX，l，78） and had a famous shrine at Abae，while both of these cities are very near to Cleonae，which was in fact a dependency（ $\pi \rho \circ a \sigma \tau \epsilon \hat{\epsilon} \nu \nu$ ） of Hyampolis，so that the inscription may possibly belong to one or the other of these places．At least one inscription of Abae （I．G．IX，l，78）has strayed as far as Kalapodi．

17．Exarchos．A small stele of white marble；in a private house on the north side of the town．The letters are apicated．

## APIミT $\Omega$ N

## ${ }^{\prime} A \rho i \sigma \tau \omega \nu$

18．Pirza．A small slab of white marble in a tiny ruined chapel of Hagios Elias．Pirza is a rough and now wholly deserted region at the head of a very rugged gorge about an hour and a half southeast of Rigini．

## ПAY入oY <br> YCAoCCABINoY

Maúdov｜＂Y $\sigma$ aos（？）$\Sigma a \beta i \nu o v$.
19．Hagios Ioannes．A small stele of white marble；in the barn of the solitary inhabitants of the spot．Hagios Ioannes is about an hour and a half southeast of Rentserion on the way from Mendenitsa to Drachmani in the valley of the Boagrios．The insignificant ruins nearby，where a bit of mosaic pavement dating probably from Roman times is visible，are called Palaiokastro．

## 廿EINOKPATEIA

## Фєілократєía

The itacism is the only note－worthy thing about the name．For the stem $\phi \iota \lambda$－spelled $\phi \epsilon \iota \lambda$－compare Kaibel，Epigr．Gr．，p．289， 6 where $\phi \epsilon \hat{\lambda} \lambda o s$ is a new coinage for $\phi \iota \lambda i a$ ，as Kaibel points out． The letters are all apicated．

## Notes on some Previously Published Locrian Inscriptions.

1. Larymna. In the metrical inscription published by Jardé and Laurent (B.C.H. XXVI, 1902, pp. 329 ff .) the lacunae left by the editors in verses 15,16 and 18 may be supplied thus:

15

$$
\begin{aligned}
& \dot{a} \lambda \lambda \dot{\alpha} \tau o ̀ \nu \quad i \mu \epsilon \rho \tau а і ̂ s ~ T \iota \mu o ́ \xi \epsilon \nu o \nu \in[\hat{v} \phi \rho] o \sigma \iota \text { Mov́бaıs }
\end{aligned}
$$

V. 15. Compare Kaibel, Epigr. Gr., 812, 5, єن̋申 Hermes. The asyndeton is easily allowable, especially in such epitheta ornantia, see Kühner-Gerth, II, 546, 3, sub finem.
V. 16. For the idea compare Kaibel, op. cit., praef., 474a, 1 ò raîs Mov́oals á $\rho$ '́бas; and for the middle voice, Herodotus IX, 79,
 and VI, 128.
V. 18. Compare I.G. IX, 1, 235 (also from Larymna), where the $\pi o ́ \lambda \iota s$ is represented as mourning for the dead young man, and Kaibel, $o p . c i t ., 271,21 \mathrm{f}$. , where the $\pi \dot{\alpha} \tau \rho \eta . \therefore \mid . \pi \hat{a} \sigma a$ laments the death of a virtuous woman. For $\pi \dot{\alpha} \tau \rho a ̆$ compare Anthol. Pal. VIII, 134, 4.
2. Larymna. The inscription published by L. Bizard (B.C.H. XXVII, 1903, pp. 296 ff .) is now built into the wall of the house of Georgias Malerdos some ten feet above the ground. It was brought from Upper Larymna in 1906. I made a careful copy supplemented with a photograph. The dimensions are: length, 64 cm ., breadth, 42 cm . on the left side, and 33 cm . on the right. The figure in the centre of the upper portion, which Bizard calls doubtfully a "couronne (?)", is an eagle with head turned to the right and outstretched wings, perched upon the bottom of a wreath, the left half of which is made of laurel, the right of olive. In the upper lefthand corner are crossed palm branches, in the corresponding position to the right a small amphora. Probably an attempt was made to represent in this upper band four kinds of prizes given at the games in honor of the Ptoan Apollo, palm branches, garlands of laurel and of olive, and amphorae (doubtless filled with oil). The combination of laurel and olive in one wreath was doubtless to save space.

The alphas in 'Ava日ŋ̂c are $A$ not $A$, and so frequently in the inscription, both forms appearing. In line 2 eta is H . The
mark of abbreviation over AYP and MAP never extends over the $P$ at all, but extends, if anything, to the left of the preceding letter, e. g., line 12, MAP A $\bar{Y} P$. The spacing of the lines in the majuscule copy is inexact; lines 3-6 fill the whole space; 7 is one letter short, and a space is left at the end. In line 6 the $\Upsilon$ in $\pi \rho \circ \phi \eta \tau \epsilon \dot{v}$ is perfectly clear, and the same is true of the O and the N in line 7. In line 11 the upper left hand corner of $E$ is visible, and the same is true of the top of $\Omega$ in line 12 , of the tops of Ar at the end of line 13 , and of the last six letters of line 14. In Col. B line 1 the final $N$ is visible. In line 4 at the end the correct reading is $\mathrm{TH} \mid$ for $\tau \hat{\eta}[l]$ not TE.

3-5. Larymna. (3) I.G. IX, 1, 237. The omega is much smaller than the other letters. (4) Jardé, B.C.H. XXVI, 1903, No. 23. The sigmas are distinctly larger than the other letters. (5) Ibid. No. 27. The omega is made thus: $\Omega$

6 and 7. Martino. (6) I.G. VII, 4165. Alpha is always A except in KAI, line 3. In line 2 the stone cutter added the $T$ between $\Sigma$ and $\Omega$ by cutting the left side of the omega to a straight line and running a cross stroke over to the left from the top of the letter. The form in which it is printed does not make it clear that a real ligature was formed. The chapel of Hagios Georgios is situated in a place called Palaiochori. (7) I.G. VII, 2841. This stone is now in the chapel of Hagia Panagia. Compare No. 6 above.
8. I.G. IX, 1, 242. This inscription is now in Malesina. Lolling lists it as from Larymna; there is either an error in his entry, or else the stone has been moved.
9. I.G. IX, 1, 292. The doubt about the proper reading of this inscription, i.e., 'A $\begin{gathered}\text { afìvos or 'A } \gamma a \sigma \iota \nu \omega \text { came wholly from }\end{gathered}$ Koerte's incorrect statement (Ath. Mitt. III, p. 313), denying that there was room for a sigma at the end of the stone, despite the fact that his own facsimile (Ath. Mitt. IV, pl. XIV, 2) gave abundant room. As a matter of fact there is not only sufficient room for the final letter sigma (as Lolling also had observed), but traces of it are distinctly visible. It is quite like the other sigma in the word only not quite so much inclined.
10. Kolaka. I.G. IX, 1, 287. In line 1 after OI the stone has AトAM, VO§. I could see no trace of an omega as Lolling reported, while the mu seems perfectly clear. The name must then be "A $\rho \mu[0] \nu o s$, for which see I.G. IX, 2, 1044 and Quintus Smyrnaeus X, 86. In line 2 the stone cutter originally cut TA,
and then tried to change it to TE by extending the top stroke of the $\Pi$ over to the $A$ and adding the cross strokes of the $E$ to the right upright stroke of the latter, thus TTA:.

Note. After proof on the foregoing article had been corrected and sent in, I was surprised to receive from Miss Hetty Goldman a minuscule copy of inscription No. 10 above, which Mr. Pappadakis had made on the occasion of a hurried visit to Malesina a few weeks ago. With her kind permission I shall note the significant variant readings of Mr. Pappadakis, designated by the letter P. In general the readings find fewer points of irregularity than my copy showed. For example, Пaрáuovos and $\Pi$ a $\alpha \mu \dot{\rho}$ óov are read by P. at every occurrence, in line 19 Kaßipıरos, in line 23 'А $\sigma \kappa \lambda \eta \pi \iota \dot{a} \delta o v$, in line $16 \mathrm{Z} \omega \pi \dot{\prime} \rho \rho o v$ and $\Sigma \dot{\omega} \sigma \omega \omega \nu$. Possibly Mr. Pappadakis has emended trifling errors as he went along, without always troubling to note the same. I observe that in line 2 he does not note the false stroke of the E, disregarding it no doubt as an obvious error. In the superscription likewise he writes iota subscript, although it is certainly adscript. Line 1, both iotas subscript P. L. 3, no note of the symbol )
 no note of the symbol ) after Z $\omega i$ ìov. L. 7, B $\iota \dot{\iota} \iota$ P. (?). L. 8, Kovi $[\rho] \tau \iota o s$ P. This is closer to my own reading than Kovi $[\nu \tau]$ oos and is certainly correct. L. 8, $\Phi \iota \lambda \iota \sigma \tau i \omega \nu o s$ P. Yet compare the places noted above where the symbol) has not been recorded.
 P. (?). L. 10, in 'A $\begin{gathered}\text { a } \theta \dot{\eta} \mu \epsilon \rho o s ~ P . ~ c o n f i r m s ~ m y ~ c o r r e c t e d ~ r e a d i n g . ~\end{gathered}$ L. 10, Пapauóvou P., and so all other cases of this word. See note ábove. L. 11, P. confirms my correction. L. 13, $\theta \epsilon \kappa \kappa \lambda \hat{\eta} s$ P. (?). L. 15, P. confirms my conjecture $\Pi \rho \iota \mu i \omega \nu$. L. 16, Z $\omega \pi \pi^{i} \rho o v$ P. L. 16, $\Sigma \dot{\omega} \sigma \omega \nu o s$ P. L. 17, Пááuovos P. L. 18, P. confirms both of my conjectures, and the form Eúßórou. L. 19, Kaßipıरos P. L. 20, P. did not see the rho in the first word; confirms my correction of the second. L. 22, $\Sigma \omega \tau \eta \rho i \delta o v$ P. (?). L. 23, 'А $\sigma \kappa \lambda \eta \pi \iota \dot{\prime} \delta o v$ P. L. 24, Kє́ $\rho \delta \omega \nu$ P. (?). L. 28, P. confirms Фaúv ${ }^{`}$ Epuia P. L. 29, roîs è $\pi \iota \gamma \epsilon \gamma \rho a \mu \mu$ '́voıs P. (?). L. 30, B $\iota \omega$ P. (?); a confirmation of my conjecture. L. 31, à $\nu^{\prime} \gamma \rho a \psi a \nu$ P. (?). L. 31, $\chi \omega \rho i o \nu$ P. (?). This seems impossible as a personal name. L. $32, \mathrm{P}$. confirms my reading tò and $\Theta \omega \rho a \kappa i \delta a s$. In view of the number of places at which my reading differs from that of Mr. Pappadakis, it is to be hoped that the stone in question can soon be taken away from its present owners, who are quite likely to
destroy or permanently injure it, and removed to some place of safety, where it can be examined with the care it deserves. Miss Goldman writes me that the owners had told her the stone was from Halae. Of course such testimony is poor at best, and in this case, as Miss Goldman was excavating at Halae, quite unreliable. The number of ephebi is quite too large for so small a village as Halae, which has no recorded history after the time of Sulla (the notice of Pausanias is no evidence that it survived in his day). When a great city like Athens could produce only a handful of native born ephebi in these days, how should a trifling hamlet have had such numbers as appear here? I wish to acknowledge my gratitude to Miss Goldman for waiving the privilege of publishing, this inscription herself, although it was shown her as early as 1911. I was solemnly informed by the owners that I was the first person ever to lay eyes upon it, and should certainly not have taken such pains with it had I supposed that anyone had prior claims.
W. A. Oldfather.

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# ARCHAEOLOGICAL NEWS ${ }^{1}$ 

# NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS 

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## GENERAL AND MISCELLANEOUS

CHINA.-A French Archaeological Expedition.-In C. R. Acad. Insc. 1914, pp. 553-560, V. Segalen makes his first report upon the results attained by the "Mission Voisins, Lartigue et Segalen," in China. He gives a record of the sites where ancient monuments were found from Si-ngan fou, the place from which the expedition started, to Yatcheou where the report was written in June, 1914.

NECROLOGY.-E. Amélineau.-In January, 1915, E. Amélineau died at the age of 65 years. His writings on Christian and ancient Egypt are many and important. By his excavations at Abydos (1894-1898) he led the way to a knowledge of predynastic Egypt. (S. R., R. Arch. XXIV, 1914, p. 333.)

Joseph Déchelette.-In R. Arch. XXIV, 1914, pp. 315-327 (portrait), S. Reinach publishes a highly appreciative notice of Jean-Marie-Joseph Déchelette (January 8, 1862-October 4, 1914), who was killed in battle as captain in the 298th regiment of territorials. His chief works are the Vases ornés (1904) and the Manuel d'archéologie préhistorique, celtique et gallo-romaine. Of the latter the first volume appeared in 1908, the fourth in 1914. His other writings, chiefly on the archaeology of France in prehistoric and protohistoric times, are many and important. See also C. Jullian, R. Et. Anc. XVI, 1914, pp. 417-421.

German Archaeologists Fallen in Battle.-Members of the German Archaeological Institute who have fallen in the war are: E. Katterfeld, assistant in the Roman Branch; H. Kohl, who took part in the expeditions to Baalbek and Boghazkeui; G. Matthies and K. Menadier, fellows of the Institute in 1913

[^123]and 1914; W. Reimpell, of the Western Asiatic section of the Berlin Museum; M. L. Strack, Professor of Ancient History, and S. Sudhaus, Professor of Classical Philology, at the University of Kiel; H. Schultz, of the University of Göttingen. Two honorary members have died, C. Klügmann, formerly a member of the Board of Directors, and F. Adickes of Frankfort, who has been active in organizing the Academy and the University of that city and the Roman-German Boundary Commission. (Arch. Anz. 1914, cols. 445-448; 1915, cols. 1-4.)
Eugène Grébaut.-In R. Arch. XXIV, 1914, p. 332, G. Maspero gives a biographical notice of Eugène Grébaut, recently deceased (January 8, 1915). Since 1892 he had been lecturer at the Sorbonne on the ancient history of the Orient. He had been for the preceding six years Directeur général du service des Antiquités de l'Égypte, and for three years before the Directeur de l'Institut du Caire. He was a learned Egyptologist, but hardly fulfilled the brilliant promise of his youth.

Kyriakos Mylonas.-Kyriakos Mylonas, a member of the pioneer group of scientific archaeologists among the Greeks, died November 9, 1914, at the age of seventy-nine. He was a native of Smyrna and a Doctor of Philosophy of Göttingen. Since 1866 he has been engaged constantly in the archaeolog-
 he did much to raise it to its present position of importance. As a university teacher and as a writer his work was characterized by an enthusiastic love for art and for the scientific investigation of truth, in which accuracy and order were the first principles. ('A $A x$. ' $E \phi$. 1914, p. 273.)
Marcel Reymond.-Marcel Reymond was born at La Mure in 1859 and died at Lyons, October 13, 1914. He was an advocate by profession, but exerted himself successfully to make the University of Grenoble an intellectual centre. He was a profound student of Italian art. His chief work is La Sculpture Florentine (four volumes, 1897-1900), but he is the author also of the Histoire de l'Architecture Italienne (de 1300-1700 environ) in Michel's Histoire de l'Art, of numerous monographs on Italian artists, and of several other books and articles. (S. R., $R$. Arch. XXIV, 1914, p. 331.)
Antonio Salinas.-Antonio Salinas was born at Palermo, November 19, 1841, and died at Rome, March 6, 1914. His first paper, on Punic coins, appeared in 1858; he was made Professor of Archaeology in the University of Palermo in 1865, and Director of the Museum of Palermo in 1873. His great work on the coins of the ancient cities of Sicily is unfinished, but his published articles are many and valuable. (S. R., R. Arch. XXIV, 1914, p. 330.)

Félix Thiollier.-An archaeologist of great merit and author of important monographs on mediaeval art in France, Celtic archaeology, and kindred subjects, Félix Thiollier (1842-1914), has recently died.
William Robert Ware.-William Robert Ware, the eminent professor of architecture at Columbia University, died at Milton, Massachusetts, June 9, 1915, in his eighty-fourth year. He was a graduate of the Lawrence Scientific School of Harvard University, and the organizer of the schools of architecture at the Massachusetts Institute of Technology in 1866, and of Columbia University in 1881. He designed the building of the American School of Classical Studies in Athens. He was one of the earliest members of the

Institute of Architects, and was at one time secretary of the Archaeological Institute of America. (Nation, June 24, 1915, pp. 709-710.)

The Earl of Wemyss.-In June, 1914, the Earl of Wemyss died at the age of 96 years. At his house in London, and also at Gosford, in Scotland, he possessed remarkable objects of art, among them the marble eagle once the property of Horace Walpole (Mon. Piot, III, pp. 39-50), a statue of Psyche, a relief (St. Cecilia) attributed to Donatello, and a portrait of a man by Memling, which last was sold in 1913. (S. R., R. Arch. XXIV, 1914, p. 330.)

## EGYPT

GIZEH.-Excavations in 1913-1914.-In B. Mus. F. A. XIII, 1915, pp. 29-36 ( 15 figs.), G. A. Reisner reports upon his excavations at Gizeh in 1913-1914. The pits of several mastabas which had previously been excavated were cleared in order to find inscriptional evidence for their date. This was found. It is now known, that the western section of the royal cemetery belonged to the period of Cheops, the southern section to that of Chephren,


Figure 1.-Portrait Head from Gizen


Figcre 2.-Portrait Head from Gizeh
and the eastern section to that of Mycerinus. Eight life-size portrait heads of white limestone representing courtiers of Chephren and members of his family were found in clearing the shafts of the mastabas. Two of the heads (Figs. 1 and 2) represent men of foreign type. Two jars of an un-Egyptian style, which may be Syrian, also came to light. The subsidiary mastabas in the streets between the great mastabas date from the fifth dynasty.

## SYRIA AND PALESTINE

GIBEAH.-A Discovery of Pottery.-In Pal. Ex. Fund. 1915, pp. 35-37 (4 pls.), R. A. S. Macalister reports a number of specimens of pottery from
the collection of Mr. Herbert E. Clark, of Jerusalem. They are from tombs in the south foot of Tell el-Fūl, exhumed in July, 1909. All of these specimens. of pottery are of dates between 900 в.с. and 500 в.с. They are all "Hebrew Canaanite" in shape and in workmanship, and show a "Hebrew decadence" of the fine old ware six hundred to nine hundred years older. As a clean unmixed group of pottery, found without that of other periods, and at this site of Tell el-Fūl, believed to be Gibeah of Saul, they are very interesting.

## ASIA MINOR

## AN ARCHAEOLOGICAL JOURNEY IN SOUTHERN ANATOLIA.-

 In Mon. Ant. XXIII, 1915, cols. 5-274 (5 pls.; 50 figs.), R. Paribeni and P. Romelli publish the results of an archaeological journey made by them in southern Anatolia in 1913. They describe remains of sculpture, inscriptions and buildings at Adalia from which they started, and record other ancient remains at Perge, Istavros, Im-Deressi, Sillyum, Qadrich, Magydos, Lagon, Mersina, Soli-Pompeiopolis, Tarsus, between Mersina and Selefke (prehistoric and later remains), Aspendus, Side, between Side and Coracesium (Alaya), between Alaya and Selinti, near Magiar (a site which an inscription proved was called $\delta \tilde{\eta} \mu o s$ K $\epsilon \pi \rho \dot{\eta} \lambda \omega \nu N^{\prime} \omega \nu$ in antiquity), Adanda, Iotape, Phaselis, the $\pi \epsilon \rho \iota \pi b \lambda \iota o \nu$ of Termessus, Trebenna, the road between Termessus and Adalia, Kyrkgöz Chan, Ekcili, Ariassus, near Omar Effendi Ciftlik (prehistoric remains), Kremna, near Eelören (an unidentified town), Sagalassus, the road from Isbarta to Adalia, and near Kyzyllyk. They publish 177 new inscriptions.AMATHUS.-A Bilingual Inscription.-In 'A $\rho x .{ }^{\prime} E \phi .1914$, pp. 1-2 (fig.), E. Sirtig publishes a short dedicatory inscription of the fourth century b.c. from Amathus in Cyprus. One version in an unknown language (perhaps related to the Minoan), is written in Cypriote characters, the only words which can be read being the (Greek) proper names, which are reproduced in the parallel Greek version. Some of the terminations in the first inscription are the same as terminations in four inscriptions in Cypriote characters published by R. Meister, indicating that they are probably all written in the same language.
MYTILENE.-The Citadel.-In $\Pi_{\rho a k \tau \tau \alpha ́, ~ f o r ~ 1913, ~ p p . ~ 117-118, ~ N . ~}^{\text {. }}$ Kyparisses who has been excavating at Mytilene, suggests that the hill upon which the citadel is located was not originally an island; also that the earliest settlement was made here. This has, however, not yet been confirmed. The most interesting object so far found is a triple-bodied marble Hecate.

PATMOS.-The Citadel Walls.-In Ann. Scuol. It. I, 1914, pp. 370-372 (fig.), B. Pace gives the results of his recent search for ancient remains on the island of Patmos. The walls of the citadel date from the fifth or fourth century в.c. Below the citadel traces of a small settlement were found; but the island must have had few inhabitants in antiquity.

RHODES.-Ancient Remains.-In Ann. Scuol. It. I, 1914, pp. 364-367 ( 5 figs.), L. Pernier reports upon the remains chiefly of walls noted by G. G. Porro, in 1912 in different parts of the island of Rhodes.

Tombs at Camirus and at Ialysus.-In Ann. Scuol. It. I, 1914, pp. 368-

369 (fig.) G. G. Porro calls attention to two pithoi containing remains of skeletons recently found at Camirus; also to a tomb dating from Mycenaean times, and to another dating from the second or third century b.c. Ilid. pp. 369-370, B. Pace records the finding of eight tombs cut in the rock at Ialysus. On p. 70 the same author mentions the discovery on Monte Smith (the acropolis of Rhodes) of about thirty small altars with unpublished inscriptions.

Greek Inscriptions.-In Ann. Scuol. It. I, 1914, pp. 367-368 (3 figs.), G. Oliverio publishes two Greek inscriptions from Rhodes and one from Leros not previously noted.

## GREECE

MISCELLANEOUS DISCOVERIES.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 140 f., are the following brief reports of recent discoveries: 1. Corcyra (K. A. Rhomaios) (a) On the site of the temple "of the Gorgon" were discovered: an inscription referring to the family of the Chersicratidae, who traced their lineage from the Corinthian Chersicrates, the founder of Corcyra; a votive inscription to Artemis; a curious terra-cotta conduit; two large fragments of the sculptured frieze of the pronaos. (b) At Kardaki, near the temple, were found several fragments of the terra-cotta acroteria of the temple, representing Nikai or maidens. (c) Within the Acropolis, on the "Mon Repos" estate, the foundations of a large temple were identified (see below). 2. Mytilene and the recently acquired islands of the Aegean (N. Kyparisses). Except in Thasos, where a good public collection of antiquities has been augmented by recent gifts to the Greek government and by the excavations of the French School at Athens, most of the antiquities of the islands are being transferred by Director Kyparisses to Mytilene, where a large central museum is planned. Mr. Kyparisses has explored and charted Chryse, the now sunken island of Philoctetes, off the east shore of Lemnos. In Castellorizas, off the southwest coast of Lycia, he has discovered numerous inscriptions, Lycian reliefs, etc., and, in a grave, a fine ivy crown of golden leaves. 3. Thessaly (A. S. Arvanitopoullos). Many antiquities, chiefly inscriptions, have been collected. Inside the better preserved beehive tomb at Dimini a grave was discovered and excavated. On the site of Iolcus near Volo several graves were excavated, among them a large beehive tomb containing seventy bodies, burned on the spot, and a great variety of articles of grave "furniture." The author expected the first volume of The Painted Stelae of De-metrias-Pagasae, with ten colored plates, to be issued by the end of 1914.

ATHENS.-The Odeum of Pericles.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 143-166 (pl.; 23 figs.), P. Kastriotes publishes a full account of his excavations on the southeast slope of the Acropolis in search of the Odeum of Pericles, prefaced by a survey of all that was previously known as to the location, nature, and history of the building. Although the evidence of the excavations is not sufficiently explicit to make the identification certain, Mr. Kastriotes is confident that he has found the site, at least, of the Odeum. Immediately above the solid rock, which had been levelled for a large building, was a thick layer of ashes and charcoal and a great heap of partly burned terra-cotta roof tiles -remains such as we should expect to find from the burning of the large
wooden structure. In the "Valerian" wall (probably dating, as Judeich believes, rather from the fifteenth century of our era), where it crosses the site, are fragments of theatre seats, some of them doubtless from the Dionysiac theatre. One, however, decorated with a sculptured owl (like two others found in the Propylaea) can hardly be assigned to the theatre and it, as well as others, may well have belonged to the Odeum. An unfluted marble column drum found in the Dionysiac theatre bears an inscription (I. G. III, 542) expressing in general terms the gratitude of Athens to its benefactor, Ariobarzanes Philopator, king of Cappadocia, who we know from Vitruvius rebuilt the Odeum destroyed during the siege of Sulla. The inscribed column doubtless formed part of the interior colonnade of the neighboring Odeum. One of the walls discovered in the excavated area is very likely part of the foundation of the skene. Among the more interesting finds was a marble portrait head, perhaps representing Ariobarzanes himself, and the lower half of a double herm, the front of which is bisected by a vertical incised line. To the left of the line is a stamnos in relief, to the right a caduceus, which makes it seem probable that the herm marked the boundary between the precinct of Dionysus and some sanctuary of Hermes.

CEPHALLENIA.-A "Homeric" Bowl.-In 'A $\rho \chi$ ' ${ }^{\text {E } \phi .1914, ~ p p . ~ 210-222 ~}$ (pl.; 7 figs.), N. Kyparisses publishes an interesting "Homeric" bowl of earthenware found in a grave excavated by him at Kokkolata in 1912. It belongs to the class of bowls cast from models of metal relief bowls of the third and second centuries b.c. The eleven figures, each labelled with its name, form four groups: the duel of Alexander and Menelaus, the shooting of Menelaus by Pandarus, the exploit of Diomedes, and the sacrifice of Polyxena by Neoptolemus on the tomb of Achilles; the first three scenes following closely the accounts of Homer, the fourth that of Euripides' Hecuba. The Berlin bowl described by Robert in Homerische Becher (Fünfzigstes Programm zum Winckelmannsfeste, 1890 , pp. 73 ff .), which is of the type on which separate figures were stamped after the completion of the bowl itself, has freely copied, without the inscriptions, the Polyxena scene of the Cephallenian bowl, adding some figures from the other scenes through failure to recognize that they were distinct. The scenes on these bowls are evidently copied from series of paintings illustrating the whole Iliad, Odyssey, etc., like those of the Samian Theon (Pliny, N. H. XXXV, 138).

CORFU.-Excavations in 1914.-In Ath. Mitt. XXXIX, 1914, pp. 161176 ( 6 figs.), W. Dörpfeld describes the excavations at Corfu in 1914. Digging on the site of the Gorgon temple was continued, and its main dimensions ascertained ( $23.80 \times 48.95 \mathrm{~m}$.). Seven triglyphs, three metopes, and several blocks from the top course of the cella wall were discovered as well as two fragments of limestone reliefs which may have decorated the façade of the pronaos. The better preserved of these shows a warrior brandishing a spear, and wearing greaves on his upper and lower arm. In style and material it resembles the pediment sculptures. A fine marble antefix belongs to a restoration of the roof in the sixth century. Pieces of a terra-cotta sima, 0.80 m . high, are to be ascribed to an earlier temple with wooden entablature. Among the inscriptions found was a stone from the family monument of the Chersicratidae (X $\epsilon \rho \sigma \iota \kappa \rho a \tau \iota \delta a ̂ \nu \mid \pi a \tau \rho \omega \iota \sigma \tau \dot{a} \nu)$. Another, carved on the base of a votive
 worshipped in it was Artemis.

In the park of Mon Repos the boundary walls of the acropolis and remains of a fountain house were uncovered, as well as traces of a second Doric temple, slightly smaller than the Gorgon temple and dated about 400 в.c. A female head in limestone may belong to the decoration of its pediment. At the edge of the temple plateau several pieces of terra-cotta sima decorated with heads in relief, came to light. They include fragments of two heads of Gorgons and a lion's head practically complete. These are closely related in style to the archaic sima from Thermos, and are, therefore, to be ascribed to an earlier wooden temple on the site of the later one.

Further excavations of the prehistoric settlement discovered in the preceding year showed that it is almost entirely destroyed.

EPIRUS.-Inscriptions.-In 'A $\rho \chi$. 'E $\phi .1941$, pp. 232-241 (14 figs.), D. Evangelides publishes, with facsimiles and brief notes, twenty-one Greek and three Roman inscriptions from Epirus, mostly sepulchral and votive, ranging from the third century b.c. to Christian times. The кoเv $\boldsymbol{\nu} \tau \hat{\omega} \nu \bar{\sigma} \gamma \gamma \delta \nu \omega \nu$ of a dedication to Poseidon was not a commonwealth of Epirus, as the author first surmised ('A $\rho$. ' $\mathbf{E} \phi .1913$, p. 235), but a family religious organization. The decree of Photike in honor of Aelius Aelianus (B.C.H. 1907, pp. 38-45) is republished with a complete facsimile.

GENNA and ELEUTHERNE.-Inscriptions.-In ${ }^{\text {'A }} \boldsymbol{\rho} \boldsymbol{x}$. ${ }^{\text {'E }} \phi$. 1914, pp. 222-229 (20 figs.), E. N. Petroulakis publishes eight late sepulchral inscriptions from Genna, and ten inscriptions, some of them archaic, from Eleutherne, Crete.

GORTYNA.-Prehistoric Remains.-In Ann. Scuol. It. I, 1914, pp. 372373, B. Pace calls attention to the recent discovery of prehistoric remains at Gortyna. In a trench a neolithic stratum 10 cm . thick was found resting upon bed rock and containing fragments of unpainted pottery, stone bowls, stone axes, etc. The stone vases date from the periods of Middle Minoan III and Late Minoan I. West of the acropolis Late Minoan and geometric potsherds were discovered. Prehistoric remains have not previously been found at Gortyna.

The Excavation of the Praetorium.-In Ann. Scuol. It. I, 1914, pp. 377380 (5 figs.), B. PACE describes the excavation of the building at Gortyna identified as the Praetorium or Basilica. It has been known since the sixteenth century and inscriptions copied by the Venetians at that time have recently been found in it. It was probably built in the early years of the first century A.D. and restored about 380. Many architectural fragments belong to this rebuilding. The excavations brought to light several pieces of sculpture, including a headless Artemis wearing a long chiton which may be a copy of a work by Praxiteles.

Ancient Fountains.-In Ann. Scuol. It. I, 1914, pp. 119-136 (12 figs.), A. Maiuri describes a small Roman nymphaeum or fountain discovered near the Praetorium at Gortyna in 1911. It seems to date from the second century A.D., but it was reconstructed in the sixth or seventh century. Several inscriptions were found near it, as well as a number of pieces of sculpture. The latter are described by G. Bendinelli ibid. pp. 137-148 (12 figs.). The more important are: 1. A headless seated female figure, perhaps a Muse; 2. A nude male torso, perhaps of an athlete, which goes back to a fifth century original; 3. A headless statue of a standing woman fully draped; 4. A
small headless male statue with the lower arms and legs below the knees missing; 5. A headless copy of the "Aphrodite of the Gardens," height 1.18 m .; 6. A headless female figure nude to the waist, which once held a shell; 7. A helmeted head of Athena broken off at the mouth; 8. Three fragments of a colossal female statue, perhaps an Athena, dating from the second century a.d.; 9. A sarcophagus with figures in relief on the sides and ends. Ibid. pp. 148-159 (8 figs.), P. Perali describes a fountain near the Great Baths which may be dated by its sculptures in the second century a.D., and remains of five other fountains or cisterns at Gortyna.

A Sanctuary of Egyptian Divinities.-In Ann. Scuol. It. I, 1914, pp. 376377 (fig.), G. Oliverio announces the discovery in the field of Constantinos Papadakis, south of the Praetorium at Gortyna, of a building identified by an inscription as a temple of Egyptian divinities. Several pieces of sculpture more or less broken were found in it.

NICOPOLIS.-Recent Excavations.-In Практькג́ for 1913, pp. 83-112 ( 15 figs.), A. Philadelpheus reports upon his excavations at Nicopolis in 1913. The temple of Poseidon and Ares, erected by Augustus to commemorate his victory at Actium, was found badly demolished, as the stones had been carried off for use in the city walls in Byzantine times. It was about 56 m . long and 23 m . wide, of the Corinthian order, made of a local stone covered with stucco. Many architectural fragments were discovered on the site. The few fragments of the frieze which came to light indicate that it ran all around the building and probably had to do with Augustus, his victory, and the gods to whom the temple was dedicated. Another site which was examined seems to have been the agora. Many tombs were opened, and lamps, jewelry, coins (mostly bronze) and Greek and Latin inscriptions found. The more important objects are now in Preveza.

OROPUS.-Excavations at the Amphiareum.-In 1913 excavations were carried on at two places near the Amphiareum, at a site on the right bank of the stream where part of a building was found in 1909, and at another site to the west of this. The walls uncovered are not yet understood. (Практька́ for 1913, pp. 113-116.)

PYLOS.-A Beehive Tomb.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 99-117 (pl.; 27 figs.), K. Kourouniotes describes the structure and the contents of a beehive tomb, discovered by Skias (cf. Практєка́ 1909, pp. 274 ff.) about three miles northeast of ancient Pylos. The entrance passage and doorway are of ashlar masonry, the walls of the vault, which has a diameter of 8.50 m . at the base, of small, rough stones. The first burials, in graves in the floor, are contemporary with the later shaft graves of the acropolis of Mycenae (early years of Late Minoan II), as is proved by three large amphoras of the "palace" style. Above these are burials showing that the tomb was used almost continuously for some four hundred years, to the beginning of the geometric period. Before the last burials the contents of the tomb were rifled and most of the bones piled up together to make more room. Upon a late Mycenaean pyxis is an interesting sketch of a beaked man-of-war with high bow and stern, central mast and sail, fish pennant, and steering gear, resembling drawings of ships on geometric vases. Upon an venochoe are conventional spirals made into snakes by the addition of conventional heads and tails.

THEBES.-A Folding Mirror.-In 'A $\rho \chi$. ${ }^{\text {E }} \boldsymbol{\mathrm { \phi }}{ }^{\circ}$. 1914 , pp. 117-129 (pl.; 10 figs.), N. G. Pappadakis describes a beautiful relief on the circular cover of a folding bronze mirror, and other objects found in a woman's grave of the third (or late fourth) century b.c. near Thebes. The relief represents a young satyr and a nymph seated upon rocks and half facing each other. The satyr holds a club which rests on the ground beside him and the nymph has an arm about the neck of a panther. The composition is very skilfully adapted to the circular space, and the figures are full of life and grace and charm. Such romantic pairs are often depicted on mirror cases, fit adornments for a lady's dressing table. The present group shows the influence of both Dionysiac and Erotic prototypes, as well as scenes in which Heracles appears. Corinth was the great centre for such decorative bronze work.

THESSALY.-A Votive Relief.-In 'A $\rho$. ${ }^{\text {'E }} \boldsymbol{\phi}$. 1914, pp. 244-248 (fig.), N. I. Giannopoulos publishes a votive relief (perhaps from Pherae) of about 400 B.c. The workmanship is excellent, but the figures are badly battered and no inscriptions are preserved. Asclepius reclines on a couch with Aphrodite (?) seated at his feet; they are approached by a diminutive worshiper, behind whom stands a youth (as a heroized ancestor) with a horse. Beneath the couch is an ox or bull, representing the animal sacrificed to Asclepius.

Inscriptions from Gonnus.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 4-23 (13 figs.), A. S. Arvanitopoullos continues the Gonnus chapter' of his 'Thessalian Inscriptions' (cf. Ibid. 1913, p. 25, etc.). Twenty-four sepulchral inscriptions (several with reliefs) exhibit new names. Twenty-one additional ex-votos include (No. 218) the only inscription in the local dialect found on the acropolis of Gonnus, and (No. 225) a dedication to Artemis Euonymos, a new epithet, apparently euphemistic for the chthonic aspect of the goddess. Several stamped tiles from the temple, one inscribed lamp, and four small inscribed vases complete the list. Ibid. 1914, pp. 167-184 (11 figs.), the same writer continues his account of these inscriptions. Of chief interest is a decree of Gonnus and one of Athens of about 250 b.c. with reference to the reception of Athenian ambassadors sent out to announce the Eleusinia, the Panathenaea, and the Mysteries. The Athenian decree, by its general terms, is seen to be part of a programme to increase the interest in the great Athenian festivals among the Greek states, and thereby to increase the prestige of Athens itself. The Eleusinia, as distinguished from the Mysteries, must be the great preliminary festival held in Athens. Nine decrees are in honor of foreign judges serving in the courts of Gonnus. In one of these the month Xandikos, probably Macedonian, occurs for the first time. A decree of proxenia honors an Alexander from the hitherto unknown Macedonian city Arkynia.

TYLISSUS.-A Treaty between the Cnossians and the Tylissians.-In ${ }^{\text {'A }} \rho \chi$. ${ }^{\bullet}$ E $\phi .1914$, pp. 94-98 (2 figs.), J. Hatzidakis publishes an interesting treaty of alliance between the Cnossians and the Tylissians, of about the middle of the fifth century b.c., found at Tylissus close by the ruins of the Minoan palace. The treaty was made through the intervention of Argos, and is written in the Argive dialect with Argive characters. Any change in the treaty was to be made by a conference in which Argos was to have equal representation with the other two cities. In the making of war and of peace Tylissus (as the less
important city, apparently) was to have only half the representation that Cnossus had, Argos having no voice in the matter. A similar treaty between these cities, found at Argos, is published by Vollgraff, B.C.H. 1910, p. 321, and 1913, p. 278.

## ITALY

CAMPAGNANO.-Miscellaneous Antiquities.-In Mon. Ant. XXIII, 1915, cols. 277-312 (4 pls.; 7 figs.), A. Della Seta publishes several antiquities, including fragments of red-figured vases, vases of local manufacture, and a small bronze ladle found at Campagnano in 1910. They were surreptitiously sold, but some of them have been recovered and are now in the Villa Giulia in Rome.

CANITELLO.-A Prehellenic Civilization.-N. Putorti has found traces of a prehellenic civilization at Canitello in Calabria, where excavations are now being systematically carried on. (B. Pal. It. XL, 1914, pp. 84-85.)

CUMAE.-A Report upon the Excavations.-In Mon. Ant. XXII, 1914, cols. 449-871 (Pls. 56-123; Figs. 164-273), E. GÀBRICI continues his report of the excavations at Cumae (see A.J.A. XVIII, p. 396), describing in detail the contents of the tombs opened. He also gives an account of the minor excavations on the site. The plates, which fill a portfolio, reproduce vases, objects of bronze, jewelry (including ornate gold fibulae), terra-cottas, gems, glass vessels, etc. Among the scenes on the red-figured Attic vases are Hermes slaying Argos, and the rape of Antiope. A late Attic hydria has in relief on the shoulder representations of the Mysteries. Some of the vases are clearly of local manufacture. The writer appends tables giving the date, depth, kind, size, etc., of each grave opened.

ESTE.-A Bronze Palette.-In B. Pal. It. XL, 1914, pp. 71-72, A. Alfonsi publishes an early Italian bronze palette found at Este.

LECCE.-A Stone Weight.-A small stone pyramidal weight (?) at Lecce contains an inscription, only partly legible, in an alphabet which seems a mixture of the Latin and the Greek. The only complete word identified appears to be Vizgotas. (F. R[Ibezzo], Neapolis, II, 1915, pp. 369-370.)

PITIGLIANO.-An Eneolithic Tomb.-In B. Pal. It. XL, 1914, pp. 53-55, A. Minto describes the contents of an eneolithic tomb at Pitigliano (Grosseto).

SALA CONSILINA.-A Pre-Roman Bronze Spindle.-In B. Pal. It. XL, 1914, pp. 175-177, A. Maidri describes a pre-Roman bronze spindle from Sala Consilina (Salerno) and a small askos from the same place.

UGENTO.-A Messapian Inscription.-In Neapolis, II, 1915, p. 369, F. Ribezzo publishes without comment a transcript of a fragmentary Messapian inscription of the fourth century b.c. found at Ugento.

## SPAIN

CADIZ.-Recent Excavations.-In Boletin de Sociedad Española de Excursiones, XXII, 1914, pp. 161-175 (13 pls.), P. Quintero describes the excavations carried on at the ancien ${ }^{\dagger}$, necropolis of Cadiz in 1912 and 1914. Many pieces of jewelry were found including rings, earrings, pendants, etc., of gold; fragments of Greek, Roman, and Phoenician vases; vessels of glass; and a few small terra-cotta heads. In 1914 several tombs were discovered built
of large stones laid on edge and covered with a third stone (Fig. 3). Their dimensions are about 2.10 m . long, 1.10 m . high, and 0.45 m . wide. Many


Figure 3.-Tombs at Cadiz
skeletons were found in them. The remains show marked Phoenician characteristics, but the writer thinks that they belong to a Pelasgian race.

MERIDA.-Latin Inscriptions.-In B. Soc. Ant. Fr. 1914, pp. 104-106, R. Cagnat publishes several short Latin inscriptions from Merida.

## FRANCE

ALISE.-Excavations in 1914.-In Bulletin des fouilles d'Alise, I, 1915, pp. 61-67 (plan), E. Esperandieu publishes a daily report of the excavations carried on at Alise from April, 1914 until the breaking out of the war. Many small finds of no particular importance were made. Ibid. pp. 86-90 (map), the same writer publishes various notes on Alise and reports upon the work of the Société des Sciences de Semur on the site in 1914.

DIE.-Latin Inscriptions.-In B. Soc. Ant. Fr. 1914, pp. 160-161, J. Formage publishes four short Latin inscriptions found at Die (Drôme).

LYONS.-Excavations at Fourvière in 1913-1914.-In C. R. Acad. Insc. 1914, pp. 431-436 (plan), G. De Montadzan reports that in the autumn of 1913 and the spring of 1914 the large Roman house at Fourvière was further excavated and two more rooms with mosaic floors uncovered, making seven in all. There were doubtless other mosaics in the building.

MARSEILLES.-A Greek Inscription.-In R. Et. Anc. XVI, 1914, p. 407 (2 figs.), M. Clerc publishes the epitaph of a Greek freedman recently found in the rear of the Bourse at Marseilles. It reads $\Lambda o v \kappa i \varphi{ }^{\prime}$ 'Appovvтi $\varphi$ 'Epuoкрitч. The family of Arruntia is well known.

TOULON.-A Greek Inscription.-In R. Ett. Anc. XVI, 1914, pp. 408-409 ( 2 figs.), M. Clerc publishes a Greek inscription recently found at Toulon.
 Meveat ${ }^{2}$ áov $\chi a \tilde{\imath} \rho \epsilon$. Oaly one other Greek inscription is known to have been found at Toulon.

VENASQUE.-An Ancient Site.-In B. Soc. Ant. Fr. 1914, pp. 136-144 (fig.), J. Formigé points out that Venasque was inhabited not only during the Middle Ages, as its walls prove, but also in Roman times. There was apparently a branch of a Roman road running from Carpentras through Venasque to Apt. Recent excavations have brought to light many minor antiquities, including Latin inscriptions. The name of the ancient town is not known, but the writer believes it to have been Aeria.

## GERMANY

MUNICH.-Acquisitions of the Museums in 1913.-Glyptothek: A beautiful little relief, the left-hand half of a small limestone frieze representing the Lower World, probably from the base of a naiscus, from Apulia. Two Danaids are emptying their jars into a half-buried reservoir while the king and queen of the Lower World are seated in audience and Hermes is hastening from their presence toward Heracles, who was probably the central figure of the composition. It is to be compared with the large Apulian vases representing the Lower World, in Munich and elsewhere. Sculpture Collection: A large Attic grave stele with fine palmette ornament and the inscription on the
 in Velanidésa together with a small lutrophorus on which in relief Xenocratea is shown with two bearded men, Nicander and Nicophorus. Undoubtedly there was another lutrophorus on which Xenocratea was seen with her parents, and the two jars stood at the corners of an enclosure for the grave or on either side of the larger monument. A similar use may be assumed for the pair of female panthers facing in opposite directions, the second of which has now been acquired (see Arch. Anz. 1912, col. 121). These are said to belong to the stele of Mnesarete of the same collection. Antiquarium: Two bronzes from Rome-the handle of a large Roman lamp on which the bust of the god Caelus, in the type of Sarapis, is shown supported by an eagle and a wide crescent spangled with silver stars (second century a.D.), and a small plate in relief, perhaps a belt-clasp, on which a Greek warrior is attacking a battlemented town, as Capaneus before Thebes. A knife handle from Greece, of Hellenistic-Roman date, is in the form of a pigmy overpowering a crane. In terra-cotta, three archaic Boeotian figurines, three Tanagras, one from Myrina, eight from Samsun (boy with goose, children playing about a herm of Priapus, ass carrying burdens, Eros with dog kneeling on an altar, caricatured mask, etc.), also a bit of wall-mosaic (opus sectile) with flowers and leaves inlaid in colored marbles on a slab of slate. Vase Collection: Of Attic Geometric ware, a covered jar with smaller vase on the lid, a hydria with plastic snakes on the shoulder, handle and rim, a cylix with high conical base pierced with slits, and other pieces; alsp a black-figured Attic amphora with a curious satyr mask between apotropaic eyes (loaned); and in the prehistoric section a pitcher with handle and pointed mouth, from Kul Tepe in Cappadocia. Coin Cabinet: Several hundred specimens, including seven gold coins, a large find of Roman denarii (Valerian to Aurelian, 253-275 A.D.) from Forchheim,
and twenty-five Celtic-British bronze coins from Hampshire. Other silver didrachms, tetradrachms, decadrachms, etc., are from Syria, Southern Italy, Sicily, Carthage, Corcyra, Macedonia, Thrace, Lesbos and the Greek coast cities of Asia Minor and the Pontus. On a bronze coin of the Thracian king Rhoemetalces I, the emblems of the Julian family are displayed. The twentyone numbers of engraved gems include a lentil-shaped stone with a crude animal design, similar to the Melian gems, of the seventh century b.c.; a late Assyrian conical onyx seal with a king and ibex and a chalcedony scaraboid with heraldic lions, showing oriental influence; a Greek scaraboid gem of about 400 b.c. with deer and hound; and four Etruscan scarabs of different epochs, the oldest being an archaic Pallas Athena of the end of the sixth century. Others are Greek and Hellenistic-Roman,-a large green paste gem with Nike and a quadriga (fourth century b.c.), a satyr before a shrine, Dionysus leaning on a pillar, Asclepius, a walking ox, Nike with a palm, a dancing maenad, a female portrait of the time of Trajan. (P. Wolters, J. Sievering, G. Habich, Arch. Anz. 1914, cols. 453-476; 17 figs.)

## GREAT BRITAIN AND IRELAND

ANDOVER.-A Bronze Hoard.-In Proc. Soc. Ant. XXVI, 1914, pp. 3234, W. Dale publishes a hoard of scrap bronze found near Andover, including broken swords, spearheads, etc. They belong to the latest period of the Bronze Age in Britain. He also calls attention to an iron axehead from Clausentum; and to a greenstone celt found near Beaulieu. Ibid., pp. 3436, the paper is discussed by R. A. Smith and J. P. Bushe-Fox.

BALMUILDY.-Excavations in 1913-14.-In Proc. Soc. Ant. XXVI, 1914, pp. 243-244, G. MacDonald reports upon the excavations carried on by the Glasgow Archaeological Society at the fort of Balmuildy, an important station on the Antonine Wall. The remains point to three well-defined periods. The best preserved buildings are two sets of baths. The finds made, including interesting fragments of sculpture, date from the second century A.D. Explorations were carried on at other places along the wall also.

CORBRIDGE.-The Excavations in 1913.-In Proc. Soc. Ant. XXVI, 1914, pp. 185-188 (4 figs.), F. Haverfield reports that in 1913 no important discoveries were made at Corbridge. The area excavated lay to the northeast of that previously explored. A large building, which was probably a granary, was excavated, and the top of a small altar found. The latter has a fragmentary inscription, Deae Pantheae, on one side, and a male head on each of the other sides.

IRELAND.-Archaeological Discoveries in 1913-14.-In Proc. Soc. Ant. XXVI, 1914, pp. 245-248, E. C. R. Armstrong reports upon the archaeological discoveries in Ireland in 1913-14. Among the interesting objects found were a bronze torc, and part of a second, three bronze bracelets, a bronze palstave, and a hinged brooch of provincial Roman type. A hoard of gold objects is supposed to have been discovered near Strangford Loch, County Down, but it was dispersed. A torc, a model of a shield, two pins, and five model axes have been recovered and are now in Dublin.

SCOTLAND.-Archaeological Discoveries in 1913-14.-In Proc. Soc. Ant. XXVI, 1914, pp. 241-243, A. O. Curle reports upon the archaeological discoveries in Scotland in 1913-14. Nothing of particular importance was found.

## NORTHERN AFRICA

SBEITLA.-A Christian Epitaph.-In C. R. Acad. Insc. 1914, pp. 482488 (fig.), A. Merlin and P. Monceaux discuss a Christian inscription of eighteen lines found at Sbeitla, the ancient Sufetula, in 1912. It is an epitaph of a priest named Vitalis who died in 494 or 495.

TRIPOLI.-A New Mile-stone.-In B. Soc. Ant. Fr. 1914, pp. 230-231, R. Cagnat calls attention to a Roman mile-stone found by the Italian army between Tripoli and Gharian. It is numbered 56. The road was built by Caracalla in 216.

VALLEY OF THE BAGRADAS.-Latin Inscriptions.-In C. R. Acad. Insc. 1914, pp. 594-601 A. Héron de Villefosse publishes seven inscriptions in Latin from the valley of the Bagradas. Four of these are from the neighborhood of Tebourba. The two longest are a votive inscription to Mercury Sobrius, and a metrical grave inscription of twenty lines, both found at Souhilia.

## UNITED STATES

BOSTON.-Acquisitions of the Museum of Fine Arts.-In the Thirty-ninth Annual Report of the Boston Museum of Fine Arts, pp. 93-97, L. D. Caskey reports the acquisitions of the Museum in 1914. (1) A statuette of the Minoan snake goddess (see above, pp. $237 \mathrm{ff} ., \mathrm{Pls} . \mathrm{X}-\mathrm{XVI}$ ). (2) A head of a youth of Pentelic marble, perhaps from a votive statuette of the end of the fifth century b.c. (3) A statuette of Heracles (Brunn-Bruckmann, Denkmüler, Pls. 569-570). (4) A sardonyx intaglio representing a woman standing holding out her hand to a child seated on the ground with its hand to its head. (5) A Greek earring of gold in the form of a hoop ending in a bull's head with long horns bent back upon the neck. (6) Fifty-seven terra-cottas from Cyrene.
(7) A terra-cotta head of Heracles. (8) Two black-figured Attic vases.
(9) A bowl and twelve vase fragments from Phylakopi; a goblet and nine fragments of prehistoric Thessalian ware; three vases, three terra-cotta idols and three horses of the Mycenaean period; and three vases of the Dipylon style, from the National Museum at Athens. (10) Four gold coins from Cyrene.

NEW YORK.-Egyptian Antiquities acquired by the Metropolitan Museum in 1914.-In B. Metr. Mus. X, 1915, pp. 15-17, the following acquisitions of the Metropolitan Museum are reported: 218 ostraca of pottery and limestone, seven inscribed pieces of wood, 110 vases and other objects of terracotta, twenty-two mud jar-sealings, wooden balusters, spindles and other objects, and many small antiquities, all Coptic; five pots of the fourth dynasty, fourteen ostraca, a trial sketch on limestone of the Middle Kingdom, many miscellaneous antiquities of the eleventh, eighteenth, nineteenth, twentieth, twenty-fifth and twenty-sixth dynasties, 479 objects in all, from Thebes; a wooden statuette of Sesostris I, a wooden shrine with Anubis symbol, two painted coffins, an ushabti and its coffin, a statuette, four limestone and four wooden Canopic jars with lids, four other wooden Canopic jars, seven blocks of limestone relief, two seated limestone boat figures, inscribed limestone base of statue of Sesostris I, two foundation deposits, etc., of the twelfth dynasty from the South Pyramid of Lisht; a diorite sarcophagus from Sakkara of the thir-
teenth dynasty, five limestone fragments of royal decrees of the eighth dynasty from Coptos, a red granite statue of Thutmose III from the temple at Karnak, four limestone Canopic jars, eighty-one limestone and other model stone vases, twelve pots, six potstands, etc., from the burial chamber of the tomb of Perneb, of the fifth dynasty at Sakkara, a pierced sandstone window from the palace of Ramses III at Medinet Habu, ten alabaster ushabtis of Siptah of the nineteenth dynasty, various stones vases and other miscellaneous objects, 232 in number, from the excavations of Mr. Theodore M. Davis in the Valley of the Tombs of the Kings, and at Medinet Habu; two painted coffins, two stools, a musical instrument, and other objects of the seventeenth and eighteenth dynasties from the excavations of the Earl of Carnarvon at Thebes; samples of linen cloth from Tarkhan, of the third or fourth dynasty, and 104 other objects from the Egyptian Research Account; a wooden tablet painted with the plan of a garden, of the eighteenth dynasty, from Thebes, a scarab of Thutmose III recording the erection of two obelisks, a stone vase of the twelfth dynasty, two limestone stelae of the eleventh dynasty, a block of painted relief from the pyramid temple of Sesostris II at Lahun; a head of a diorite statue of the eighteenth dynasty, an inscribed alabaster vase of Xerxes, four inscribed writing tablets of wax on wood and a bronze scale in a wooden box, Coptic. Other acquisitions are noted as follows, ibid. p. 59, a wooden statuette of a woman from Harageh; a painted limestone relief from the ceiling of the pyramid temple of Sesostris II at Lahun, of the twelfth dynasty; wooden coffin of Khnumu-nakht of the twelfth dynasty, and limestone statue of Ini and his wife Rennut, eighteenth or nineteenth dynasty, from Assiut. P. 83, six bronze and eleven glaze figures of deities and more than one hundred other miscellaneous small objects. P. 112, a painted wooden figure of a horse and rider of the seventeenth or eighteenth dynasty, a painted sandstone slab from a Theban tomb of the eighteenth dynasty, a statuette of Isis and Horus, a gold ring with green jasper plaque inscribed with the names of Thothmes III and Hatshepsut, and many minor antiquities.

A Commemorative Scarab of Thutmose III.-In B. Metr. Mus. X, 1915, pp. 46-47 (fig.), Miss C. L. R(ansom) publishes a scarab of Thutmose III of the eighteenth dynasty bearing the inscription "Men-kheper-re, whose two obelisks endure in the temple of Amon." Scarabs of this type are rare, but similar ones are known from the reigns of Amenhotep II and III as well as that of Thutmose III. The obelisks in question may have been the pair which stood in front of Pylon IV, or those to the south of Pylon VII at Karnak, and perhaps commemorated the thirtieth year of the king's accession to the throne.

Classical Antiquities acquired by the Metropolitan Museum in 1914.-In B. Metr. Mus. X, 1915, pp. 23-27 (7 figs.), Miss G. M. A. R(Ichter) reports the acquisition by the Metropolitan Museum in 1914 of ten marble sculptures, eight bronzes, seventeen vases, four terra-cottas, seven pieces of gold jewelry, four gems and one mosaic. The most important of the sculptures are a bronze statue of a boy (see below), and a bronze head of Agrippa, probably broken from a large statue, found at Susa near Turin in 1904. Other acquisitions were a marble portrait bust of a woman, of the time of Trajan; the upper part of a Roman cippus with portrait busts of a woman and two men, of the time of Hadrian; a portrait head of a child with leaves and grapes in his hair, perhaps late Greek; a large female head (height 47.8 cm .) of Greek work of
the third century, intended to be set into a statue (Fig. 4); a head of a youth wearing a fillet (Roman copy of a Greek work); a small head of a youth broken from a statuette, fourth century Greek work; the head of a satyr of the Hellenistic period; a tragic mask of colossal size, of the Roman period; two large tomb vases of the Dipylon style; two black-figured vases, one signed by Nicosthenes, the other bearing the name Psiax; a cylix with warriors; a diminutive marriage vase; a Greek mirror with relief of Marsyas playing double flutes; an archaic terra-cotta relief representing mourners at a funeral; two statuettes of Tanagra type; seven plaques of an Etruscan frieze of red hippocamps on a blue ground; gold necklaces, earrings, and other small pieces of the third century b.c. said to have been found at Cumae; four gems of the Mycenaean period. Ibid. pp. 1-5 ( 3 figs.), the same writer describes the bronze statue of a boy. (See above, pp. 121-128, pls. I-VI.) Ibid. pp. 8-11 (4 figs.), the same writer records the acquisition of sixteen Minoan


Figure 4.-Marble Head in New York vases and reproductions of several others. Ibid. pp. 70-72, she describes the two geometric vases acquired. They are $4 \mathrm{ft} .3 \frac{3}{8} \mathrm{in}$. ( 1.305 m .) and $3 \mathrm{ft} .11 \frac{7}{8} \mathrm{in}$. ( 1.216 m .) high, respectively. They are crater shape with two handles on a high foot. The foot of one is missing. The principal scene on each is the funeral of the deceased whose grave they adorned. They were found in Attica. Ibid. pp. 98-99 (4 figs.), she describes other vases acquired during the year. The cylix of Nicosthenes has on the outside in black-figured style a four-horse chariot seen from in front between two eyes, and Dionysus and maenads dancing, also between two eyes. On the interior is a Medusa head in a combination of black and red figured technique. The cylix with the name Psiax has, in red-figured technique, on one side Pegasus between eyes and on the other a nose. On the interior in black glaze are two large birds. Another acquisition was a panathenaic amphora decorated with five men running. It dates from the last quarter of the sixth century, and was published in the Annali dell' Instituto, for 1830, p. 218 and in the Monumenti, I, pl. 22, 6.

## EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL AND RENAISSANCE ART

## GENERAL AND MISCELLANEOUS

CONSTANTINOPLE.-The "House of Justinian."-In 1913 excavations were begun at Constantinople on the site of the Byzantine palace known as the "House of Justinian." An imposing façade is still standing; but although much was learned about the building no evidence was found to identify it. (R. Mesquich, C. R. Acad. Insc. 1914, pp. 444-451; fig.)

RHODES.-Mediaeval Remains.-In 1912 G. Gerola made a careful examination of the mediaeval remains in the Sporades for the Italian government. In Ann. Scuol. It. I, 1914, pp. 169-356 (121 figs.); he publishes the first instalment of his work, a report upon the mediaeval remains in the different towns of the island of Rhodes.

## GREECE

ERETRIA.-The Monastery of St. George.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 192-197 (pl.; 6 figs.), A. S. Georgiades describes, with photographs and plans, a small deserted monastery built on the site of an ancient temple, about six kilometers north of Eretria. The church is poorly built, partly of ancient materials. Wall paintings of poor artistic quality, illustrating the martyrdom of saints, are preserved in the narthex. The marble slab of the altar is decorated with an interesting meander pattern consisting of four corner units connected with one in the centre, four reçtangular spaces left vacant being filled with fourspoked wheels, or Greek crosses within circles. Trial excavations should be made in the vicinity.

MACEDONIA.-Byzantine Monuments.-In חрактєкá for 1913, pp. 119251 ( 17 figs.), K. G. Zesiou reports upon the condition of some of the Christian monuments of Macedonia. These include the churches of St. George,
 St. Sophia, the Prophet Elias, another church of the Virgin ( $\theta_{\text {єото́коv) }}$, and the Church of the Twelve Apostles at Salonika; the church of St. Nicholas at Serrai; the monastery of Prodromos with its antiquities and works of art; the monastery of Kossupheneisa, and less important remains at Nikesiane, Pravion, Kavalla, Philippi, near Pella, and at Karyotissa. Many Byzantine inscriptions are recorded. He also publishes an account of the founding of the church of St. Sophia in Constantinople from a manuscript in the monastery of Kossupheneisa, as well as passages from several other manuscripts.

NICOPOLIS.-Christian Monuments.-In 'A $\rho$. ${ }^{\text {'E }} \boldsymbol{\phi}$. 1914, pp. 249-260 (7 figs.), A. Philadelpheus publishes plans, photographs, and descriptions of two churches of Nicopolis which he has recently excavated, prefacing his article with a brief survey of the history and significance of this metropolis of Epirus. 1. The large church of the Ascension, situated on a hill southeast of the city was destroyed by fire, probably in the eleventh century. Originally built as a basilica, it was later remodelled in the second Byzantine style, with interior arrangement in the form of a cross, a central dome and four corner cupolas. Extensive repairs, including the covering of the whole interior with plaster undecorated by any painting, were at one time made, perhaps by the Venetians to restore the building for use as a Roman Catholic church. 2. The Basilica of the Holy Apostles, west of the city, is a simple basilica of the oldest type, built certainly as early as the fourth or fifth century. As there are no windows in the side walls, there must have been a clerestorey, or possibly an hypaethral impluvium, foundations for the supporting columns of which were found around the centre of the floor. The walls are of concrete with facing of brick. Near this church is a small, nearly circular building with four apses, which in all probability was the baptistery.

SALONIKA.-Tables of the Movable Feasts for 1474-1493.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 206-209 (3 figs.), G. P. Oikonomos publishes tables of the
movable feasts for the years 1474-1493 painted on the face of an anta of the narthex of the church of St. Demetrius in Salonika, and found covered by a thick layer of Turkish stucco. The arrangement of the tables makes it not unlikely that those for 1485-1493 were painted later than the others, in which case the chureh certainly remained in the hands of the Christians as late as 1484.

## ITALY

DAMAGES FROM THE EARTHQUAKE.-In Arte e Storia, XXXIV, 1915, pp. 35-42, 67-74, and 119-120, are catalogued the principal monuments of central Italy injured or destroyed by the great earthquake.
DOCUMENTS CONCERNING GIACOMO BIANCHI.-In Rass. Bibl. d'Arte Ital. XVIII, 1915, pp. 1-5, C. Grigioni publishes some new documents on a lost "coffanum" by the sculptor Giacomo Bianchi. Their importance lies in the fact that they show that this sculptor was not a Venetian but a native of Dulcigno, Montenegro.

NEW DOCUMENTS FOR TOMMASO FIAMBERTI.-In Felix Ravenna, Fasc. 17, pp. 760-762, C. Grigioni publishes unedited documents on the last years of Tommaso Fiamberti's activity at Cesena.

PAINTINGS IN THE MARCHES.-In L'Arte, XVIII, 1915, pp. 1-28 and 172-208 (pl.; 62 figs.), L. Venturi publishes much new material for the history of painting from the Marches. Among artists discussed and illustrated with pictures which were for the most part hitherto unknown are Bonaventura di Michele, Benedetto Rainucci of Spoleto, Giovanni Baronzio of Rimini, Luca di Tomè, Andrea da Bologna, Gentile da Fabriano and his immediate school, Antonio da Fabriano, Girolamo da Giovanni, Lorenzo II da San Severino, Antonio Solario, etc.
A NEW GENTILE DA FABRIANO.-A Madonna with St. Rose, newly acquired by the Direzione Generale di Antichità e Belle Arti and attributed to Gentile da Fabriano, is published in L'Arte, XVIII, 1915, p. 232 (fig.).
ASCOLI.-The Ceramic Decorations of the Churches.-In Faenza, III, 1915, pp. 16-20 (pl.), E. Calzini calls attention to the majolica decoration on some of the early churches of Ascoli, on the façades of S. Venanzo, S. Pietro in Castello, S. Angelo Magno, and S. Maria delle Donne, and on the campanile of S. Maria inter Vineas. The ceramics are not anterior to the fourteenth century and were probably manufactured at Castelli.
BERGAMO.-A Fourteenth Century Portico.-Seven pilasters with capitals and bases, belonging to a loggia of the cloister of S. Agostino, Bergamo, and dating from the fourteenth century, have recently been discovered, but further research about the cloister cannot be made because the place is now used for military purposes. (Pagine d'Arte, III, 1915, pp. 1-2; fig.)
BOLOGNA.-A Deposition by Ercole de' Roberti.-The R. Pinacoteca at Bologna has recently acquired a painting of the Deposition from the Cross begun by Ercole de' Roberti but left incomplete at his death and finished by Bastiano Filippi; the picture originally belonged to the Santini collection. (Pagine d’Arte, III, 1915, pp. 2-3.)
COMO.-A Statue by Andrea Sansovino.-In Jb. Preuss. Kunsts. XXXVI, 1915, pp. 129-136 (pl.; 5 figs.), W. Biehl publishes a marble statue of St. Sebastian in the north transept of the cathedral at Como and attributes it. to Andrea Sansovino, dating it before 1507.

FLORENCE.-A Madonna by Chiodarolo.-In L'Arte, XVIII, 1915, pp. 226-227 (fig.), R. Offner writes a note on a picture attributed to Chiodarolo in the collection of Mr. F. Mason Perkins, Florence.

MILAN.-A Painting Acquired by the Brera.-There has been recently exhibited in the Brera a Madonna painted by Gerolamo Boccati da Camerino; it was purchased at Camerino for only seven hundred francs. (Pagine d'Arte, III, 1915, pp. 17-18.)

PADUA.-Recent Discoveries Concerning Paduan Art History.-In Vol. XVI of the Bollettino del Museo Civico di Padova A. Moschetri shows that Pietro Lombardo resided in Padua 1464-1467, that he then executed the monument to Antonio Roselli in the Santo and probably designed the Casa Olzignani and various other works-all matters of importance, for previously nothing was known of this artist up to 1475 . Further, Bartolomeo Bellano's birth date is determined about 1434 and his death date after 1495. (Burl. Mag. XXVII, 1915, p. 120.)


Figure 5.-Frescoes of S. Giovanni a Porta Latina

PALESTRINA.-Excavation of S. Agapito.-In N. Bull. Arch. Crist. XXI, 1915, pp. 69-75 (fig.), O. Marucchi gives an account of the progress made on the excavation of the suburban basilica of S . Agapito at Palestrina. Among other funerary remains has been found part of the original marble enclosure of the sarcophagus of the saint.

ROME.-New Investigations of Early Christian Basilicas.-In Röm. Quart. XXIX, 1915, pp. 3-25 (12 figs.), P. Styger reviews the results of the recent study and restoration of three early Roman churches. The basilica of the SS. Quattro Coronati has been so restored as to show the remains of the ninth century church without destroying the smaller thirteenth century one which stands today. Interesting remains of painting of both these periods have been found in the left hand chapel of St. Barbara as well as some twelfth century decoration on the walls of the main nave above the ceiling. In S. Giovanni a Porta Latina a most remarkable discovery has laid bare the whole cycle of wall frescoes of the twelfth century (Fig.5). Excavations in S. Sabina
have resulted in various small finds, pavement mosaics, inscriptions, a sarcophagus, and remains of the old furnishing of the church.
The New Crypt in the Catacombs of Sts. Peter and Marcellinus.-In $N$. Bull. Arch. Crist. XXI, 1915, pp. 5-11 (pl.), O. Marucchi discusses the recent excavations in the catacombs of Sts. Peter and Marcellinus. The important cubiculum of St. Clement (not the Pope) and his companions has been found. This proves that the topographical indication "in comitatu" refers to these catacombs on the Via Labicana. Ibid.pp. 57-62, two inseriptions from the same excavations are published with notes.

A Lamp Handle in the Museum of the German Camposanto.-In Röm. Quart. XXIX, 1915, pp. 54-58 (fig.), O. FAsiolo publishes an early Christian bronze lamp handle from the museum of the German Camposanto in Rome. To judge from the representation of race-horses it would seem to have been a gift to some favorite auriga.

## FRANCE

REIMS.-The Cathedral after the Bombardment.-In R. Arch. XXIV, 1914, pp. 177-181, W. Warren gives a brief report on the injuries incurred by Reims cathedral and by other important buildings in the city. The solidity of the Cathedral's construction accounts for the preservation of its "carcass" in spite of the shells that shattered its stained glass and of the ensuing fire which did the principal damage to its decorative sculpture. The episcopal palace, which housed the archaeological museum, the episcopal chapel, and the so-called Apartments of the Kings, as well as the chief commercial houses of the city are demolished. The abbey of St. Remi and the civic hospital which occupies the cloister of St. Remi were bombarded.

## HOLLAND

DELFT.-The Collection of G. Knuttel.-In Mh. f. Kunstw. VIII, 1915, pp. 17-21 ( 7 figs.), R. Bangel publishes seven portraits of the Dutch school in the private collections of G. Knuttel, Delft: Two by Abraham de Vries (signed and dated 1641), two by Ludolph de Jongh, one by William van Honthorst (?), one by Janssens van Ceulen (?), and one by Jan Anthonisz van Ravesteyn.

## GERMANY

BERLIN.-Raphael's St. Magdalene in the Cabinet of Engravings.-In Jb. Preuss. Kunsts. XXXVI, 1915, pp. 92-96 (pl.; 3 figs.), O. Fischel publishes a pencil drawing of a St. Magdalene. The drawing, which is in the Berlin Cabinet of Engravings, was formerly attributed to Timoteo Viti. It is, however, pricked and proves to be the cartoon for a picture by Raphael, now known only by a photograph.

Frauenburg.-An Early Christian Gold Glass.-Among the ancient relics of the cathedral at Frauenburg (East Prussia) has recently been found the circular bottom of a gold glass. In the central circle is a bust of a saint in profile, inscribed IONNES (John), and the profile busts of saints in the six radial compartments are named PETRUS, PAULUS, SUSTUS, LAURENTIUS, IPPOLITUS, TIMOTEUS. (Kolberg, Röm. Quart. XXVIII, 1914, p. 225.)

HIRZBACH.-A Romanesque Chapel.-F. Wolff describes in Mh. f. Kunstw. VIII, 1915, pp. 170-175 (5 figs.) the remains of a romanesque chapel recently discovered by him in the village of Hirzbach, near Hanau. The earliest documentary mention of this chapel falls in the middle of the thirteenth century, but the foundation probably dates from the time of Rudolf I of Hanau, two centuries earlier. There are signs of repeated rebuilding, particularly in the fifteenth century. But only within the last decade has the building, long since profaned, fallen into ruin. The square presbytery has been destroyed but the nave, a rectangular room, still retains traces of the painting with which it was once completely decorated. The triumphal arch with the free-standing, ornate, romanesque columns on which it rests and a sacrament niche are preserved.

LEIPZIG.-Loan Exhibition of Old Masters.-Through the efforts of the Leipzig Kunstverein two hundred and fifty-three old masters, privately owned in Leipzig, were made more readily accessible to the public by a winter loan exhibition. Since the two well known private collections of Alfred Thieme and of Speck von Sternburg-Lützschena sent their choicest works, the Dutch school was most favored, both in number and quality, but the Italian, German, and Flemish schools were represented. The more important pictures in the exhibit are briefly treated by E. Plietzsch, Mh.f. Kunstw. VIII, 1915, pp. 46-51 (10 figs.).

MEISSEN.-Two New Works by Vischer in the Cathedral.-In Mh. f. Kunstw. VII, 1914, pp. 393-397 (2 figs.), H. Joel publishes two bronze grave reliefs from the south transept of the cathedral of Meissen, attributing them to Vischer the Elder. He dates the first, a medallion bust of the Domherr Heinrich Sterker von Mellerstatt, 1496-1500, and the second, a full length relief of a Bishop von Weissenbach, 1500-1503.

NUREMBERG.-Drawings of Peter Vischer the Younger.-In Mh. $f$. Kunstw. VIII, 1915, pp. 52-57 (3 figs.), E. W. Braun publishes three new drawings by Peter Vischer the Younger. They were designed to illustrate Pankraz Schwenter's composition on the Deeds of Hercules, of which the manuscript, dated 1515, is in the Nuremberg Stadtbibliothek. One unfinished drawing remains in the codex, two others completed and aquarelled have been cut out and are now in the Berlin Cabinet of Engravings.

POSEN.-The Czartoryski Collection.-In Z. Bild. K. XXVI, 1915, pp. 197-212 (34 figs.), G. Minde-Pouet writes a general description of a second (less known but equally worth knowing) Czartoryski collection at Goluchow. The minor arts have been especially favored; the history of ceramics, tapestries, furniture, glassware, gold work, bronzes, ivories, etc., is represented with unusual completeness. But there are also works of painting and sculpture, the careful study of which, it is hoped, will occupy the interest of scholars who had not previously given any attention to this outlying collection.

## SWEDEN

STOCKHOLM.-A New Rembrandt.-In Burl. Mag. XXVII, 1915, p. 49, (pl.), is published an Adoration of the Magi newly ascribed to Rembrandt (Fig. 6). It belongs to Dr. Olaf Grandberg of the National Museum, Stockholm, and is thought to date about 1631.

## GREAT BRITAIN AND IRELAND

DUBLIN.-An Addition to the Dublin Gallery.-Sir Hugh Lane presented his St. Francis of Assisi in Ecstasy, a picture by El Greco from the Conde de Quinto collection, to the Dublin gallery. This painting stands at the very climax of El Greco's St. Francis series and should date about 1590. (R. C. Witt, Burl. Mag. XXVII, 1915, p. 56; pl.)


Figure 6.-A New Rembrandt in Stockholm
LONDON.-Acquisitions of the British Museum.-In Proc. Soc. Ant. XXVI, 1914, pp. 8-21 ( 12 figs.), O.M. Dalton describes a number of important mediaeval objects deposited in the British Museum in 1913 by Mr. Charles Borradaile. They are: (1) An ivory horn, or oliphant, probably used for hunting, carved with interlacing circles enclosing animals and monsters.

It may date from the tenth century, and is, perhaps, Byzantine. (2) A Byzantine ivory panel with the Dusis, dating from the twelfth century. (3) A large ivory triptych of the eleventh century. (4) A French polyptych of the first half of the fourteenth century. (5) An ivory diptych dating from the end of the fourteenth century. (6) A chrismatory of gilt copper dating from about 1200 , made probably somewhere on the Rhine. (7) A parcel-gilt silver tabernacle, probably French, of the middle of the fourteenth century. (8) A rock crystal baton dating from the latter part of the fifteenth century, probably from Hungary. (9) A silver processional cross, Italian, of the late fourteenth century.

Two Exhibitions Reveal a Rembrandt and a Rubens.-Two exhibitions, of which the proceeds were in each case devoted to funds connected with the war, are discussed by B. Nichols in Burl. Mag. XXVI, 1915, pp. 163-169 (3 pls.). Among the notable pictures at Messrs. Colnaghi and Obach's gallery are mentioned the well known Letter Writer and the Letter Received by Metsu, formerly in the ${ }^{*}$ Hope collection; an Ice Fair by Solomon Ruysdael, dated 1653; and a hitherto unknown Portrait of a Man by Rembrandt, signed and dated 1662, a "find" of great importance. The Third National Loan Exhibition at the Grosvenor Gallery consisted entirely of pictures from the Fonthill and Basildon Park collection of the Morrison family. There were a hundred and fourteen paintings, including masterpieces by Rembrandt, Hobbema, Ruysdael, Steen, Van Dyck, and Poussin; the Leonardesque Flora which inspired the notorious bust by Richard Lucas at Berlin; an historically important portrait of Queen Elizabeth by Lucas de Heere; and other admirable examples of these well known collections. A picture from the collection of Mr. Hugh Morrison, Fonthill, was catalogued as a portrait of Maria de' Medici by Frans Pourbus the Younger. C. Phllips (Burl. Mag. XXVI, 1915, pp. 157-163) attributes it to Rubens and dates it in the Italian period but is unable to identify the sitter. In a subsequent note he calls attention to the fact that Emile Michel reproduced this picture or a replica in his biography of Rubens and assigned it also to the early Mantuan period. Michel thought it was painted, however, at Madrid, Rubens having gone there on a diplomatic and artistic mission, and that the sitter was Spanish since the picture belonged to the Dukes of l'Infantado and was exhibited in Madrid as a Rubens in 1892.

Reconstruction of a Painting by Michael Sweerts.-In Burl. Mag. XXVII, 1915, pp. 91-92 (2 pls.), R. C. Witt publishes as an early work of Michael Sweerts (b. 1624), the painting which has been recomposed from Nos. 1699 and 2764 of the National Gallery.

A Music Party by Pieter de Hooch Rediscovered.-A signed picture, A Music Party, by Pieter de Hooch, of which there has been no trace since the sale of T. Loridon de Ghellinck at Ghent in 1821 has recently emerged from a private collection and passed into the hands of a London collector. It appears to date from de Hooch's best period, just before his removal from Delft to Amsterdam, and ranks in every way among his most important paintings. (L. Cust, Burl. Mag. XXVI, 1915, p. 223; pl.)

A Madonna by Barnaba da Modena.-In L'Arte, XVIII, 1915, pp. 222223 (fig.), F. M. Perkins writes a note on a Madonna owned by Sir Langton Douglas, London, attributing the picture to Barnaba da Modena.

Two Early Coptic Printed Stuffs.-In Burl. Mag. XXVII, 1915, pp. 104109 (2 pls.), F. Birrell publishes two early Coptic stuffs, each in a number of fragments, which have lately been added by loan and purchase to the collection at the Victoria and Albert Museum. On one, loaned by the Edinburgh museum, the Etimasia and Daniel in the Lions' Den can be recognized; on the other, purchased from the Graf and Richter collections, the Communion of the Apostles and a possible Journey to Emmaus.

A Medal of Scipione Clusona.-In the nineteenth installment of his 'Notes on Italian Medals' (Burl. Mag. XXVII, 1915, pp. 65-66; 2 pls.), G. F. Hill publishes a Venetian medal representing Scipione Clusona, dated 1554, and identifies as the same man the officer portrayed in the signed Tintoretto of the Ehrich Galleries, New York.

OLD SARUM.-Excavations in 1913.-In Proc. Soc. Ant. XXVI, 1914, pp. 100-117 (14 figs.), W. H. St. John Hope reports upon the excavations at Old Sarum, in 1913. The apses of Bishop Osmond's church, consecrated in 1078, were found. This church was 173 ft . long from east to west, and $113 \frac{1}{2}$ feet across the transepts. It consisted of an apsidal presbytery with narrow north and south aisles, north and south transepts each with an eastern apse, a tower over the crossing and a nave and aisles. Early in the twelfth century a cloister with covered alleys on all four sides was built to the north of the church; and west of this a two-storied structure was erected. Only the crypt measuring on the inside 60 ft . by 26 ft . remains. In the second quarter of the twelfth century a new presbytery was built and the transept lengthened. Many of the details of the new church have been recovered, including most of the pattern and coloring of the floor. In 1227 the population was removed from Old Sarum and the church razed. Several coffins, some with Latin inscriptions, were discovered, as were many architectural fragments. Pieces of verde antique and red porphyry came to light, but it is not known how they were used. These materials have been found elsewhere in England only at Westminster and at Canterbury.

OXFORD.-A Little Known Collection.-In Burl. Mag. XXVII, 1915, pp. 21-27 and 72-77 (4 pls.), T. Borenius describes the Italian paintings in the collection of the late Mr. T. W. Jackson, Fellow of Worcester College. Two pictures are passing into the Ashmolean Museum. The first, the Miracles of St. Nicholas of Tolentino by Franciabigio, (Fig. 7), is probably a predella panel from the altarpiece for the chapel of St. Nicholas of Tolentino in the church of S. Spirito, Florence. The other is a small eighteenth century Venetian picture representing Christ in the Temple. Except for the Bolognese oil sketch of a mythological subject, dating about 1600, the remaining paintings, in part from the Ramboux collection, are all early Italian: three fragments of the altarpiece by Spinello Aretino for the convent of Monte Oliveto Maggiore, two triptych shutters that approximate the style of Agnolo Gaddi, a mediocre Florentine Madonna with Four Saints of about 1400, several trecento Sienese pictures, a Judgment of Paris and a Madonna and Child with St. John of the Florentine quattrocento, and finally a late fourteenth century Christ at the Column with the signature of an artist hitherto unknown: "Opus Petri Pauli Imolensis."

## AFRICA

TRIPOLI.-A Christian Cemetery.-P. Romanelli reports the discovery of a Christian cemetery above ground about fifteen kilometers from Tripoli. (N. Bull. Arch. Crist. XXI, 1915, pp. 76-78; fig.)

## UNITED STATES

CHICAGO.-Accessions of the Art Institute.-In the Bulletin of the Art Institute, Chicago, IX, 1915, p. 34 (2 figs.), an Assumption of the Virgin

by El Greco and a Madonna by Van Dyck are published as gifts of Mrs. A. A. Sprague. The former, which has been in the Art Institute for some time, came originally from the church of the convent of S . Domingo el

Antiguo, Toledo; the latter from the oratory of the Marquis Cambiano, Genoa.

The Blair Collection.-In Art in America, III, 1915, pp. 71-78 and 119124 ( 10 figs.), G. C. Pier writes on the collection of Mrs. Chauncey Blair, Chicago. Besides the mention of various objects of ancient and oriental art, the interesting French sculptures of the romanesque, gothic, and renaissance periods are described and illustrated.
MINNEAPOLIS.-The Opening of the Minneapolis Institute of Arts.The Inaugural Exhibition, Jan. 7-Feb. 7, marked the formal opening of the new building of the Minneapolis Institute of Arts. The June Bulletin (IV, 1915, pp. 54-58; 3 figs.) already announces the first two acquisitions of the promised Charles J. Martin tapestry collection, which is to be formed gradually. One of these pieces with the representation of a falconing scene is Burgundian of the middle of the fifteenth century and closely resembles the Hardwicke Hall hunting tapestries of the Victoria and Albert Museum. The other, on which the meeting of Dante and Virgil is figured after a cartoon which can probably be assigned to Francesco Rossi, is a work of the Florentine cinquecento.
NEW YORK.-The Last Communion of St. Jerome.-In B. Metr. Mus. X, 1915, pp. 52-56, 72-75, and 101-105 ( 3 figs.), H. P. Horne publishes documentary evidence that shows that the Last Communion of St. Jerome in the Altman collection of the Metropolitan Museum was painted by Botticelli for Francesco del Pugliese; the history of this branch of the Pugliese family and their extraordinary art patronage is traced.
Holbein's Cromwell.-In Art in America, III, 1915, pp. 173-174 (pl.), F. J. Mather, Jr., writes a note on the portrait of Thomas Cromwell by Holbein, which has recently passed from Tyttenhanger Park to Mr. H. C. Frick's New York residence.

Accessions of the Metropolitan Museum.-Among the pictures received by the Metropolitan Museum from the bequest of Mrs. Morris K. Jesup are five Dutch paintings of interest, a view of Haarlem by Salomon van Ruysdael, two portraits of the school of Rembrandt, a portrait of the style of Hals, and a portrait by Van Ceulen supposed to represent Lady Townshend. (B. Metr. Mus. X, 1915, pp. 22 and 88.)

PRINCETON.-Two Unpublished Works of Benedetto da Rovezzano.In Art in America, III, 1915, pp. 188-191 (2 figs.), A. Marquand publishes two new friezes by Benedetto da Rovezzano. Both were in the hands of Signor Bardini in Florence about twenty years ago, when the writer purchased the one now in his collection in Princeton. They originally adorned mantelpieces in the palazzo on the corner of the Via dei Benci and Corso dei Tintori, Florence.
A Terra-Cotta Bambino by Desiderio.-In Art in America, III, pp. 32-36 ( 3 figs.), P. C. Nye attributes to Desiderio da Settignano and dates $1460-$ 1464 a terra-cotta Bambino in the collection of Professor Allan Marquand, Princeton.

WORCESTER.-A Terra-cotta Madonna Acquired by the Art Museum.In the Bulletin of the Worcester Art'Museum, V, 1915, No. 4, pp. 2-4 (3 figs.), is published as a recent acquisition a colored terra-cotta Madonna relief, Florentine, fifteenth century, of the anonymous type that is variously attributed to Jacopo della Quercia, the Master of the Pellegrini Chapel, the Master of the Cathedral Altar at Modena, and even Ghiberti himself.

## Jnstitute

of $\mathfrak{A m e r i c a}$

## WHO BUILT THE ARCH OF CONSTANTINE?

## IV. The Eight Medallions of Domitian ${ }^{1}$

In the papers thus far published on the arch, after the introductory paper in which I sought to prove that it was built by Domitian (87-96 A.D.), I studied some of the sculptures that were added to the original arch during the third and fourth centuries; either by cutting them in the Domitianic masonry, as was the ${ }^{*}$ case with the triumphal frieze across the east and west ends, or by transferring them bodily to the arch from some other structure, as was the case with the attic reliefs and the friezes on the north façade, or else by carving them expressly for the arch and inserting them, as in the case of two medallions of the east and west ends, and the spandrel figures.

In the present paper I shall attack the even more fundamental subject of sculptures which I attribute to the original decoration of the arch, and therefore to the reign of Domitian himself. While my general thesis cannot be said to stand or fall by this test, it will be greatly strengthened if I am able to shơw that sculptures generally conceded to belong, by their artistic qualities, to the time of Domitian, are so related to the structure of the arch as to make it seem almost or entirely certain that they formed part of the original construction; and also that they and their surroundings were afterward modified during the changes to which the arch was subjected before and during the time of Constantine, in such a way as to add to the probability that they were there already, before these changes took place.

Such sculptures I believe to be the eight medallions of the two main façades, and the four keystones of the minor arcades, only one of which, however, has escaped more or less complete destruction.

The eight medallions are in two groups: those in Figure 1 are the group on the south façade; in Figure 2 are those on the

[^124]north façade. Any apparent differences are due to the different weathering and light. Their average diameter is $c a .2 .35 \mathrm{~m}$., and they are carved in a single slab of marble. They are grouped in pairs over each of the minor openings of the arch in a panel; Figure 3 will show how they were connected with the decorative scheme.


Figure 1.-Medallions on the South Façade of the Arch of Constantine (from Mrs. Strong, Roman Sculpture)

These eight medallions have attracted more attention and admiration than any of the other reliefs, not only on account of their artistic merit, but from the mystery that surrounds them. There is a unity of theme running through all of them; it is the hunting exploits of some emperor. Who this emperor was cannot be proved, but I believe him to be Domitian. The
scenes were so harmlessly impersonal that it was not felt necessary to destroy them when the arch was dismantled after Dómitian's death. The changing of one of the imperial heads into a portrait of another emperor, conjectured by different critics to be Claudius Gothicus or Carus or Philip, ${ }^{1}$ and of another original imperial head into one supposed to be Carinus or Con-


Figure 2.-Medallions on the North Facade of the Arch of Constantine (from Mrs. Strong, Roman Sculpture)
stantius Chlorus, ${ }^{2}$ has puzzled recent critics who vary in their
${ }^{1}$ This is the Sacrifice to Hercules (N. 4), where the imperial head is so evidently recut away from the sacrificial headdress.
${ }^{2}$ The Sacrifice to Apollo (N. 2), which is not really a sacrifice, as the head is not veiled. It is probable that the original head was veiled and that in the recutting the drapery was cut away.
identifications. Another interesting change of the same class is the complete substitution (not recutting) of a head of Constantine for that of the original emperor. ${ }^{1}$ In all four of these south medallions the emperor's head is enclosed in a circular nimbus, ${ }^{2}$ a rare official Roman case of the recognition of the Suncult as the religion of the state, analogous to the recognition of the Mithraic cult by Diocletian in the base of his Memorial Column to which I recently called attention in this Journal (XVIII, 1914, pp. 146 ff .), where Mithra himself has the nimbus, not, in this case, a simple but a rayed circle. Recent studies have made it abundantly clear that, for several years after the time when the Arch of Constantine was remodelled and dedicated to him, Constantine was officially regarded as a Sun worshipper.

The imperial heads in the four medallions on the opposite or south façade present quite a different puzzle. Only in one case is the head at all preserved-in the Sacrifice to Diana (S. 4). Here there is no fracture at the neck. The head is original. Neither is there any trace of recutting in third century technique. Yet it is difficult to assert that the features are Domitianic, because they have been so badly obliterated by fire. In fact Miss Bieber believes the face recut into a portrait of Constantine! In the Bear Hunt (S. 3) the entire face has been calcined away, but the neck shows again that there was no substitution; though whether there was recutting we have absolutely
${ }^{1}$ The Boar Hunt (N. 1) and the Lion Hunt (N. 3). In both cases the break at the neck is quite clear.
${ }^{2}$ It is supposed that the nimbus was added by Constantine; and there are still critics who believe it to be due to his conversion to Christianity; and for this reason Philip the Arab is identified with one of the other heads because there is a tradition that he had secretly become a Christian. There is really no foundation for such a fantastic notion. It arises from the quite general ignorance as to the history of the nimbus in pre-Christian and non-Christian spheres. To keep in the sphere of Roman imperialism, there is a notable example of a medallion of the Emperor Diocletian with a nimbus of this same pattern. Now, no one can accuse Diocletian of being a Christian! His nimbus is a sign of his adoption of the solar cult of Mithra in the same way as its use in the case of Constantine is a sign of his worship of the Sun god Apollo. I am preparing material for the history of the nimbus or sun-glory, and this includes examples of practically every century of Greco-Roman art from the fourth century b.c. to the middle Roman Empire. The Christian nimbus was a pure case of the adoption of a perfectly well-known "pagan" symbol, and was due to the association-often expressed-of Christ with the divine Sun. It was plagiarism, pure and simple. During the third century A.D., the prevailing worship was Sun worship.
no means of knowing. In the Departure for the Chase (S. 1), the loss of the head is absolute, also apparently by fire, primarily, and by fracture, secondarily. Finally, in the Sacrifice to Silvanus, besides extensive damage by fire there was a violent fracture, apparently due to the impact of some heavy object falling from above, which split off the whole front of the torso as well as the head. Evidently, then, the current opinion that the four imperial heads on this face were left intact is unprovable in at least two cases, and may be considered only as a probability.

It is only on stylistic grounds that they can, therefore, be ascribed to Domitian; except that in the one case where the original head seems untampered with and merely injured-the Sacrifice to Diana-the evidently delicate and beardless face belongs apparently to an early emperor of the Domitianic type, which would exclude almost any other possibility.

Older critics had attributed the medallions to the reign of Trajan. With the progress made during the last two decades in a critical knowledge of Roman sculpture, two opinions were brought forward, almost simultaneously: one attributing them to Hadrian and the other to Domitian. The majority of critics appear to have adopted the Domitianic theory, which seems to be convincing. Of course it also fits perfectly into my theory of the arch and its decorative history. But, it will not be necessary for me to repeat here the arguments on the Domitianic side. ${ }^{1}$

[^125]This paper will deal with the reliefs entirely from the structural point of view, without discussion of questions of style or subject. I make a slight exception in the next few remarks because of a bearing on the questions discussed.

The first exception relates to the heads of emperors already spoken of as changed by substitution or recutting, on the four north medallions: two of the new heads being of Constantine and the other two of two different emperors who cannot be identified with certainty, but are usually thought to belong to the second half of the third century. All four have the solar nimbus. What explanation of these changes can possibly be given on the basis of the old theory that the arch was built by Constantine? The only plausible suggestion that I have noticed makes Constantine the author of all these changes. That he had only two of his own heads used and that for the other two he made portraits of two earlier emperors is supposed to be due to his desire to do honor to and assert family connection with previous Flavii and imperial solar worshippers. Constantine's historians claimed Claudius Gothicus as an ancestor of Cónstantine, and tried to connect him with the earliest Flavii. But there is a fatal flaw in this argument. Its authors seem unaware of the fact that the heads of these two other emperors-whether they are Philip, Carus, Carinus or some others-are executed in a technique simply impossible in the time of Constantine. This technique, which was current only between ca. 230 and 275 A.D., was characterized by abuse of "stippling," flat and thin hair, eyes à fleur de tête and other peculiarities which I have noted in a previous paper. It is absolutely distinct from the work done in the time of Diocletian and Constantine.

The real explanation of the changed heads seems to me to be simply this: When the arch was associated during the course of the third century with the triumphs of different emperors, some sculptures were added or changed to record each triumph. In another paper I shall study the eight half figures of emperors crowned by Victories which were inserted in the masonry of the two minor arcades to celebrate their triumphs. These figures are in the various manners of third century sculpture. Apparently it is two of these emperors whose heads were cut on the medallions, probably at the same time that their triumphant figures were inserted in the arcades below.

I merely refer to this detail of the medallions in order to show
that it favors my contention that they formed part of the arch as early as the third century and before, and were modified in situ to adjust them to the decorative features that were added and to the remodelling of parts of the arch surface. A more detailed discussion of the heads will be in order in the future paper on the eight imperial portraits of the minor arcades.

Just one more remark before entering upon the constructive discussion. The injury to many of the medallion heads with the greatest projection has already been discussed, as being due partly to fire and partly to the impact of something heavy falling from above. For instance, in the "Sacrifice to Apollo," the head of Apollo and that of the emperor's attendant with the horse were both broken off, recovered and reattached. These heads projected sufficiently ( 10 to 18 cm .) not to be protected by the frame. I have not questioned the current opinion that the emperor's head is here the original head worked over. But the point is debatable. There is an evident break at the neck; a magnifying glass will, I think, show traces of it even in Figure 2. It may easily be argued that the whole head was done in the time of the emperor whose portrait it is; or, as in the two other cases, the head may have been reattached immediately after the damage done at Domitian's death, and then recut in the third century. In any case, the fractures in these and other figures of the medallions, especially where they are diagonal or almost vertical, distinctly favor my contention that the medallions were damaged by the bronze figures and groups, the marble slabs and statues that were cast down from the attic after the death of Domitian.

Entering now into the heart of my argument, there are five main characteristics that bear on the structural relation of the medallions to the arch: (1) their shape; (2) the shaving of the lower curve of several of them; (3) the closeness of the joints; (4) the treatment of the surface around them; (5) the marble veneer of the enclosing panel.
I. Shape of the Medallions.-It has been taken for granted that the single slab on which each medallion is carved was circular and corresponded exactly to the outline of the enclosing frame. Both of these suppositions are wrong. The frame, in the first place, is not a perfect circle. It is so for about three-quarters of its circumference, but the other quarter, corresponding to its base, has been given a slight flattening, a depressed curve which
is so carefully graduated as to have remained unnoticed. In the Boar Hunt scene on the left end of the north side (N.1) this blunting amounts to four centimetres, as the width of 2.39 m . is reduced in the height to 2.35 m . It must be remembered that the four centimetres are taken from about a quarter of the circumference.

Far more important than this is another fact of which I became aware only when I studied the medallions very closely from the scaffold. It is that this circular-appearing slab rests on a square base; that from a quarter to a fifth of the lower circumference of its frame is not fitted into a slab cut with a curved edge to receive it, as is the case with all the rest of the circumference, but that what appears to be a separate base block is in reality an integral part of the medallion. The true outline of


Figure 3.-Sacrifice to Apollo (N. 2)
(A shows base-line of figures (a); actual outline of cornice (b); perfect circle (c); and squared base (d). B shows the plain block outline)
the medallion block is given in Figure 3, where in (A) the dotted line stands for the true circle at the base, and the black line for the outline of the actual medallion cornice, while in (B) is the actual shape of the block in which the medallion is cut.

The architects to whom I communicated my discovery of the square base of the medallion blocks were of the opinion that it was a strong argument in favor of my theory that the medallions were an original part of a Domitianic arch, especially in view of the extreme closeness of the joints. In confirmation I ought to call attention to the fact that these medallion blocks are not thin slabs that could easily be transferred. I tried to gauge
their thickness, but found it impossible to run into the joints the thin steel skewer which I had brought for the purpose. Only a long slender hat-pin could be inserted! I ran it to its end without meeting any obstacle so I know that the blocks are more than 35 centimetres thick; how much more I cannot say.
II. The Cut in the Base of some Medallions.-The difference between the slight flattening of the lower part of the circle on the north side in medallions 1-3, which was evidently planned at the outset by a keen-eyed and truly aesthetic artist, and the more obvious and crude flattening on the south side has never been noticed, much less explained.

Evidently there must originally have been the same slight flattening as on the north. But, for some reason this original outline was modified at some time. The outline was flattened at least twice as much, in a crude fashion. When this was done


Figure 4.-Sacrifice to Silvanus (S. 2); Trimmed Base
the encircling frame-moulding must have been so seriously encroached upon that at the extreme base it must have been practically obliterated. It was consequently seen by the stonecutters that in order to conceal this defect it would be necessary to shave off the face of as much of the lower part of the medallion frame as was affected by this change of outline. In this way the outline of the frame was totally done away with. The tooling of the new surface is very rough and shows its late date, in a period of decadence. In the last medallion on the right there was evidently a slight variation in level, because it was found necessary to trim the bottom but very slightly. The "Sacrifice to Silvanus" (S. 2) in Figure 4 is typical of the three south medallions $1-2-3$ in the amount of the trimming.

In order to make the whole matter perfectly clear, I give in Figure 5 a diagram based on the "Sacrifice to Silvanus." It
shows how the vertical line of the square medallion base corresponds to the horizontal base line of the relief and that this point of intersection is the point where the designer broke the line of the circle in order, apparently, to give an appearance of greater stability to his base. This is represented by the dotted line. Then, when the frieze was inserted, the base was trimmed crudely to the present line-not as evenly as in the cut-making a small gap between medallion and frieze.


Figure 5.-Sacrifice to Silvanus (S. 2); Showing Variations
What was the reason for this mutilation? It seems to me perfectly evident. It constitutes, in fact, one of the most cogent reasons for believing the medallions to be part of a Flavian arch. One has only to note that if this change had not been made there would have been absolutely no space between the medallion frames and the friezes below them! Whether the friezes were inserted or were carved in the existing masonry makes no practical difference. At whatever time the frieze was carved or inserted it became absolutely necessary to cut away part of these
medallion frames in order to continue without interruption the panelling of colored marble veneer around the entire medallion.

To a lesser degree the same process was required on one only of the north medallions: the one on the extreme right, the "Sacrifice to Hercules." Here the flattening needed was considerably less, but is quite evident and accompanied by a similar but less extensive cutting away of the frame and lower surface. ${ }^{1}$
III. Close Joints, Surface Tooling and Veneer.-If the medallions had been taken from an older monument and been built into the arch in the course of construction in the time of Constantine, they would have been fitted into a wall built of already prepared blocks, which would have been set with their faces sufficiently in retreat to allow of receiving a marble veneer without the need to cut them back again. The architect would in that case have been perfectly free to place them at any height and in any relation to the other decorative features that he chose. He would have arranged the sculptured friezes under the medallions in such a way that each should not interfere with the other, but they should have an adequate space between them for the enclosing marble veneer.

Now, it is perfectly evident that things did not happen in this way. We have already seen that the architect could not have been free to correlate as he pleased the friezes and medallions, but was obliged to mutilate half of the medallions to get room for the friezes. Also a glance at Figure 7 will show that the use of a veneer could not have been present in the mind of the architect when the medallions were set in the arch because the blocks were refaced and cut back in situ, when the medallions were already in place, if we can trust the evidence that stares at us from the panels.

There is a great difference between the south and north sides in the condition of the surface of the panels. On the north we can study it as it was originally recut, some time in the third century; but on the south side it is impossible to be at all sure of the date of the present surfacing, which is a pot-pourri of rough and smooth masonry, with occasional wide joints. The masonry of the north side shows extraordinarily close joints everywhere.

[^126]Moreover, the courses are formed, at the base, of vertical, not of horizontal blocks, giving much wider courses, and showing how the designer planned the masonry with due regard for the insertion of the medallions at this level. In connection with the closeness of the joints, I would call attention to the contrast with the loose joints on the upper line of the friezes, as a further indication that these friezes were inserted.

The next point is the tooling of the surface of the panels. I am inclined to believe that these panels were not formed around the medallions at the time of the first restoration of the arch; that is to say when the columns were added, the main cornice restored, and the resaults added to it above the columns. It seems as if when the pilaster responds to these columns were set into the arch the original surface still existed. Of course, the theory that I hold of successive additions during the third century in connection with the triumphs of different emperors, involves a different date for, let us say, the insertion of each pair of friezes. The two north friezes were set in, I believe, at a different time from the two south friezes; and the triumphal friezes on the two short east and west ends, with their short returns on the north and south fronts, belong to a third and still later date, as they presuppose the existence of the other friezes. ${ }^{1}$ I shall not enter into this question here, and mention it merely because it was necessary to say this in order to explain that the panelling of the north face was done at a different time from that of the south face (probably earlier) and this may explain the difference in technique.

I do not think that, on reflection, any critic would contend that the use of a veneer in these panels was part of the original plan. There are two reasons not already mentioned. The first is that where a marble facing is found it is set against a core of rubble, of brick, or, in earlier times, of travertine. But in this arch the structure itself is of marble blocks, so that marble upon marble is like painting the lily. The application of a marble veneer to a marble structure must therefore be due to circumstances arising after the erection of the structure. The second

[^127]reason is the special nature of the facing. The rule is that where there is a marble facing to a structure it consists of more or less heavy slabs. Only in a few early Augustan structures such as the Porta Praetoria at Aosta and the city gates of Spello was there a use of thinner slabs; but even in these cases the marble


Figure 6.-Arch of Constantine from the Northeast
is considerably thicker than the veneers on the arch of Constantine and was not colored. In fact, the technique of these veneered panels is a unique example of the transfer to the exterior of a structure of a process elsewhere used only for interior wall decoration. We are familiar with the use of colored marble veneers in the halls of Roman basilicas, thermae, palaces, etc., and with the transmission of this brilliant and permanent form
of interior decoration to Byzantine religious and civil art. The fact that only on the arch of Constantine, if I am not mistaken, is it used on an outside wall, is a further proof that it was not an


Figure 7.-Arch of Constantine; Souti Façade, Western Panel
original but an emergency method, to solve a difficult problem of re-surfacing.

Before attacking the details of the treatment of the panel sur-
faces, the question of the surface of the arch masonry must be at least glanced at in so far as it affects these problems. The best view for this purpose is that given in Figure 6 looking diagonally from Northeast to Southwest; that is, across the north façade from the east* end. This shows the original Domitianic masonry, practically untouched, of the whole short end, up to the main cornice and around the corner of the main face as far as the pilasters. It is plain how the triumphal frieze was cut into two courses of the old blocks in the third century and brought around the corners as far as the pilasters. Then, beyond the pilasters, the surface was cut away, a little earlier in the third century, around the pairs of medallions, in order to connect the medallions with the newly inserted friezes, and leaving these medallions as an oasis in a desert of third


Figure 8.-Sacrifice to Apollo (N. 2); Tooling Marks
century work. For, in the centre, even the archivolts of the main arcade were recut. The architectural part of this transformation will be treated in another paper.

At present I shall merely say that the surface around the medallions was cut back between 11 and 12 centimetres, and that, after architrave above and sculptured frieze below had been used to frame the panels at top and bottom and pilasters at the sides, a coat of cement from 4 to 5 centimetres thick was spread over the ground of the panels and against this were set thin veneer slabs of various colored marbles, fastened also by lead, and forming a brilliant ground for the medallion reliefs. The veneering slabs varied in thickness from 0.75 to 1.5 centimetres. We cannot say what was the color scheme of the veneer, because it was almost entirely torn away during the Middle Ages. In prizing


Figure 9.-Tooling at Base of Boar Hunt and Sacrifice to Apollo (N. 1-2)
off the veneer a few fragments at the narrowest points were left -too small and few in number to tell much of a story. Many bunches of the cement backing remain. At intervals the square holes for the lead can be noted.

Except for the places where some cement remains we can study the tooling of the marble blocks, which is of course rough and intended to be concealed. Now, the technique of this tooling is interesting. In fact I believe it to furnish the strongest of all the arguments in favor of my theory that when the surface was cut away the medallions were already a part of the arch.

The tooling marks can best be studied on the north face, where the treatment, as I have already said, is quite different from that of the south face. There are two important peculiarities of this tooling: (1) that it is often continuous from one slab to
another across the joints; and (2) that its lines are extremely irregular and diagonal, being evidently determined in their direction, their changes, and juxtapositions by the previous presence of the medallions.

The facts can best be studied in the panel which contains the Boar Hunt and the Sacrifice to Apollo (N. 1-2), illustrated in Figures 7, 8, and 9. A piece of veneer remains at both top and bottom of N. 1, at the bottom of N. 2, and between them in the centre. The top piece is 12 cm . wide; the bottom pieces 7 cm . wide; the piece between the medallions is 16 cm . wide. All but the latter, which is porphyry, seem to be white marble. The porphyry fragment is 0.75 cm . thick, is set 5 cm . away from the surface of the masonrywand 5.5 cm . back of the medallion frame.

The block forming the medallion base is very roughly and irregularly cut away near the frame of the medallion, so that the


Figure 10.-Base of Sacrifice to Hercules (N. 4)
surface is not flat but curves concavely, especially at the narrower part of the neck, as if the work had been done after the frieze had been put in position.

The inference to be drawn from the direction and length of the tooling lines is extraordinarily clear. While this is comparatively evident in the photographic illustrations of Figures 7 and 8, I have made it plainer by a careful linear facsimile in Figure 9. The three characteristics I have already mentioned are here: The continuation of the lines across the joints; the fact that the tooling does not, as would be natural, follow the rectangular lines of the blocks; but that its lines are varied so as to show that they were conditioned by the medallion frames.

In Figure 10 is the lower part of N. 4 (Sacrifice to Hercules) where it is very plain how crudely the bottom was shaved away to make room for the frieze, which would otherwise have come directly against it. The light shining on the left curve of the
base shows how there is no joint below the point where it intersects the last vertical joint; that is, how the slab rises on a square base.

The reason then for considering the medallions an original part of the arch are:
(1) That they are of Domitianic art, and that the arch is Domitianic;
(2) That they are innocuous and generic in theme and so could be spared by the iconoclasts at Domitian's death;
(3) That they set in the masonry of the arch with perfect joints of the best period and with a square base that forms part of the course masonry;
(4) That they were already in the masonry when its face was cut back all around them to add the marble veneer, as is shown by the tooling;
(5) That they were already there when the friezes below were carved or set in, as is shown by the way it became necessary to mutilate their base line in order to leave any space between them and the frieze;
(6) That the changes in the imperial heads harmonize with the idea that the arch was used to commemorate triumphs of emperors of the third century before the time of Constantine.
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# TWO COLOSSAL ATHENIAN GEOMETRIC OR "DIPYLON" VASES IN THE METROPOLITAN MUSEUM OF ART 

## [Plates XVII-XXIII]

The Athenian geometric or "Dipylon" style attained its height in the colossal vases which were erected as monuments on graves. ${ }^{1}$ Few complete or fairly complete specimens of this type have survived, ${ }^{2}$ though a large number of fragments are distributed among the various European museums. The Metropolitan Museum of Art in New York has recently acquired two magnificent examples of such vases which will rank among the best and the most complete in existence.

The two vases stand $3 \mathrm{ft} .6 \frac{5}{8} \mathrm{in}$. ( 1.082 m .) and $4 \mathrm{ft} .3 \frac{3}{8} \mathrm{in}$. ( 1.305 m .) high respectively, ${ }^{3}$ and are of the so-called krater shape, with two double handles and high foot. They were received at this museum in fragments and have been put together with the missing parts restored in plaster. These plaster additions can be seen clearly in the illustrations; no attempt has been made to complete any of the painted decorations.

Both vases have large holes in their bottoms as is usual in such amphorae, presumably in order that libations for the dead could be poured through them. ${ }^{4}$ The base of the larger vase has four

[^128][^129]rectangular incisions; that of the smaller has horizontal bands in relief. Both vases are known to have been found in Attica.

The entire surfaces of these enormous vases are covered with decorations, almost the whole stock of geometric ornaments being represented. In our description we shall begin with the vase illustrated on Plates XVII-XX and XXIII, 1, which, though rather smaller than the other, is the better preserved of the two, the paint being still in excellent condition.

The decorations of this vase fall naturally into two classes: (1) the figured scenes, which occupy (a) the panel on the front of the vase between the two handles and the spaces underneath the handles, (b) the frieze below this scene, running round the whole circumference of the vase; (2) the decorative ornaments which are strewn over the background of the figured scenes, and also form the decoration of the rest of the vase. We shall first discuss the figured scenes, independently of the ornaments strewn among them, reserving these for a separate treatment later, together with the other decorative patterns.

The principal scene, which is placed between the handles on one side of the vase, represents a funeral, with the deceased laid out in state on a bier, surrounded by the members of his family and by mourning women raising their hands to their heads. ${ }^{1}$ The artist's lack of knowledge of perspective and his conscientious desire to portray every detail, whether visible to the spectator or not, make the picture somewhat confused. Thus the deceased is depicted lying on his side with both arms and legs showing, one on top of the other. The bier is supposed to rest on four supports, ${ }^{2}$ but the effect obtained is that of a stool placed next to the bier. Both the upper surface of the bier and the canopy or cover ${ }^{3}$ depicted as hovering over it are drawn vertically

[^130]instead of horizontally. The sizes of the mourners vary considerably according to the spaces they are made to occupy; the children are quite diminutive. ${ }^{1}$ The figures in the immediate vicinity of the deceased are presumably the members of the family, while the others may be identified as professional mourners. ${ }^{2}$ Both the deceased and all the mourners are depicted nude, ${ }^{3}$ but their sex is not always determinable. If we suppose the deceased to be male, the figure seated in a chair at the foot of the bier, with a child on her lap, is probably the wife; she holds a branch in her left hand, ${ }^{4}$ and below her feet is a foot-stool. The two little figures holding hands standing on the bier perhaps represent two more children. At the head of the bier stands a figure holding a branch over the dead man's head. ${ }^{4}$ Below the bier are two ibexes and three birds. These are not part of the scene, but are merely introduced for filling empty spaces like the other ornaments strewn in the background; they will be discussed later. On either side of the bier is a row of mournerscontinued below both handles of the vase-all raising their hands to their heads in the conventional attitude of lamentation. They can all be identified as women by the indication of the breasts; these appear both on the same side. ${ }^{5}$ The bodies of the figures are painted in silhouette, except those of some of the mourners under the handles, where the upper parts are filled with crossed lines. The heads throughout are painted in outline, with the eye placed in the middle. The drawing of the faces is very primitive, there being as yet no differentiation between the nose and the chin.

We know from countless allusions in ancient writings that to the Greeks of Homeric and classical times the funeral was an
${ }^{1}$ For other instances of children being introduced into the scene, cf. Louvre A. 516 and Perrot et Chipiez, Histoire de l'Art, VII, fig. 60.
${ }^{2}$ See below, p. 388.
${ }^{3}$ Much stress has been laid by some archaeologists on the fact that women are represented nude on Dipylon vases. Kroker, Jb. Arch. I. I, 1886, has tried to account for it through Egyptian influence. It is much more easily explained by the limited ability of the artist and his geometrizing tendencies (cf. Poulsen, Die Dipylongräber u. die Dipylonvasen, p. 72).
${ }^{4}$ For other figures holding branches, cf. Perrot et Chipiez, Histoire de l'Art, VII, fig. 5. Decorating the bier with branches was customary in the fifth century and probably also before that time (cf. Aristophanes, Ecclesiaz., 1030).
${ }^{5}$ Cf. Perrot et Chipiez, Histoire de l'Art, VII, fig. 5 (the figure furthest to the right) and fig. 66. In other cases breasts are indicated one on each side; cf. Collignon et Couve, Catalogue, No. 214.
all-important ritual. Without it the shade of the deceased could find no peace in Hades. The funeral ceremonies were very elaborate. They consisted of the washing and anointing of the deceased, of the $\pi \rho \dot{\sigma} \theta \epsilon \sigma \iota$ or lying in state, the éкфорá or conveyance of the body to the tomb, and finally the burial in the tomb. Representations of all these four stages are found on Greek vases. ${ }^{1}$ The commonest, to judge from the material we possess, is the prothesis, which is also the subject of the scene on our vase.

It is interesting to compare these Dipylon prothesis scenes with later representations of the same theme. We have a number of examples from the early sixth, ${ }^{2}$ the later sixth, and the fifth centuries b.c. During the later sixth and fifth centuries, the prothesis is a favorite subject for the decoration of loutrophoroi. While as time progressed the artist naturally became much more skilful in the drawing of his figures, the essential elements remained the same. The deceased is laid out on a couch surrounded by mourners. These mourners indulge in wild manifestations of grief, raising their hands to their heads and tearing their hair. This shows the continuity of custom which we should expect in a country like Greece, where conservatism in religion and ritual was very deep-rooted. That the display of grief was sometimes carried to excess is shown by the fact that various statesmen, such as Solon and Lycurgus, had to legislate on the subject. ${ }^{3}$ Solon, for instance, forbade laceration of the flesh by mourners and restricted the number of mourners to the family of the deceased. It is interesting in this connection to find that on our Dipylon vase, which was painted, of course, before the passing of Solon's law, the number of mourners is very large, numbering altogether thirty-two. Many of these we may assume were professional mourners, hired for the occasion. In marked contrast to the pictures of passionate mourning on these vases are the sculptured scenes which decorate the marble tombstones of the Greeks. We know that the restraint shown in these representations is not typical of Greek life. But so much the more must we admire the artistic sense of the sculptor who

[^131]felt that wild manifestations of grief were no fit subject for sculptural representation, and who chose instead the serene farewell scenes which make so strong an appeal to us today.

Below the principal scene, and encircling the whole circumference of the vase, is a frieze with a procession of chariots and warriors. ${ }^{1}$ The warriors are on foot. They are nude, but each has a crested helmet, ${ }^{2}$ two spears and a sword stuck in the belt; the majority also carry large shields of "Boeotian" type. ${ }^{3}$ On each chariot is a man, who holds the reins and a whip and wears a crested helmet. The chariots are of a type familiar from other Dipylon vases. ${ }^{4}$ They have low, oblong bodies, with curved front and back pieces-solid in front, open at the back. Each has two wheels, one represented alongside the other.

The Dipylon artist, with his ignorance of perspective, evidently had great difficulty in representing the two wheels of a chariot. ${ }^{5}$ Sometimes, as here, he depicts them side by side; at other times he only draws one wheel, ${ }^{6}$ or he draws one wheel within the other. ${ }^{7}$ Another curious mistake in drawing is the way the charioteer is represented as standing not on the floor of the chariot but apparently on the railing. ${ }^{8}$ Each chariot is drawn by three horses. ${ }^{9}$ The horses, as well as the men, are all painted in silhouette. The bodies of the chariots, however, and

[^132]some of the shields are painted in outline and decorated with cross hatchings.

The question presents itself is this procession of chariots and warriors connected with the funeral scene? If it is, it can be interpreted in two ways. It may refer to the games which were held after the funeral, ${ }^{1}$ such as are described in the funeral of Patroclus, ${ }^{2}$ or it may be merely a procession accompanying the body to the tomb, similar to the row of chariots and warriors which followed the body of Patroclus. ${ }^{3}$ On the other hand, in view of the popularity of chariots and warriors as such on Dipylon vases, ${ }^{4}$ even when no prothesis scenes are depicted, it is simpler to explain this procession as an independent representation. As F. Poulsen rightly points out, ${ }^{5}$ the Dipylon artist often introduced into the decoration of his vases a number of stock subjects without any definite scheme, ${ }^{6}$ and to wish to correlate these various incidents is to build up a wholly imaginary fabric of ideas. Moreover, we know by at least one instance that the
${ }^{1}$ For this interpretation, cf. Hirschfeld, Annali, 1872, 167 f.
${ }^{2}$ Iliad, XXIII, 257 ff ; for a possible later representation, cf. Daremberg et Saglio, Dictionnaire, under funus, p. 1376, fig, 3344.
${ }^{3}$ Cf. Iliad, XXIII, 128 ff;
"Then straightway Achilles bade the warlike Myrmidons gird on their arms, and each yoke the horses to his chariot; and they arose and put their armour on, and mounted their chariots, both fighting men and charioteers. In front were the men in chariots, and a cloud of footmen followed after, numberless; and in the midst his comrades bore Patroklos, and they heaped all the corpse with their hair that they cut off and threw thereon; and behind did goodly Achilles bare the head, sorrowing; for a noble comrade was he speeding forth into the realm of Hades." (Translation by Lang, Leaf, and Myers.)
${ }^{4}$ Besides the two examples in our Museum, published in the Museum Bulletin, February, 1911, p. 33, figs. 6 and 7, cf. Wide, Jb. Arch. I. 1899, p. 193, fig. 56, p. 194, fig. 57; Arch. Anz. VII, p. 100, No. 4 ; Annali, 1872, 144, Nos. 43 and 146, No. 44, pl. 1, 2.
${ }^{5}$ Die Dipylongräber und die Dipylonvasen, p. 124 f.
${ }^{6}$ Cf. e. g. E. Pottier, Vases du Louvre A. 517, where a prothesis scene, chariots, warriors, and a ship with four oarsmen all occur together.
decoration of these vases was not planned with a view to their purpose; for the Hymettus amphora, ${ }^{1}$ which served as a coffin for a child, is decorated with fighting warriors, horsemen, and chariots. It looks, therefore, as if these large funeral vases were kept in stock, to be ready on demand whenever occasion arose, ${ }^{2}$ just as the sculptured grave stelae were a few centuries later.

The portions of the vase not occupied by the figured scenes are elaborately decorated with geometric ornaments; these are also introduced in the figured scenes for filling empty spaces without any reference to the subject represented. The forms of these ornaments are familiar, being taken from the regular repertoire of the geometric artist. They consist of borders of meander, zigzag lines, rows of triangles and lozenges, chequers, circle ornaments, wavy lines, horizontal bands, rows of dots, pyramids of angles, swastikas, and birds and quadrupeds. The scheme of the decoration can be clearly seen from the illustrations and therefore need not be described here. It may be of interest, however, to discuss the origin of these designs, and see which the geometric artist adopted from his predecessors and which he invented himself.

It has always been felt that the geometric style cannot be satisfactorily explained as a logical development out of Minoan or Mycenaean art. Though the techniques of the two are similar, and many of their decorative motives identical, they are too different in essentials for one to be derived directly from the other. The theory that the Dorians brought the geometric style with them from their northern habitations has been mostly given up, the other explanation being now generally accepted that the postMycenaean geometric style is a continuation of the primitive pre-Mycenaean geometric technique, which, though temporarily swamped by the superior Minoan and Mycenaean art, never wholly disappeared, but went on concurrently as a "peasant" style. This theory certainly meets the data of the case much more satisfactorily. For viewed as a development of the primitive geometric art under the influence of Mycenaean art, from which it borrowed, among other things, its superior techniquethe Dipylon style becomes perfectly comprehensible. ${ }^{3}$

[^133]In the following analysis of ornaments it will be seen that many of the motives used by the post-Mycenaean geometric artist were already in use in primitive geometric times. Of these some can be found also in Mycenaean pottery, while others were not employed by the Mycenaeans but came to light again in the later geometric art. On the other hand, some motives employed by the post-Mycenaean geometric artist are taken directly from Mycenaean art and have no previous geometric history.

The chief ornaments which can be found in all three arts, the primitive geometric, the Mycenaean, and the later geometric, and are also represented on our vase, are triangles and lozenges ornamented with cross-hatchings, ${ }^{1}$ rows of angles arranged generally in pyramid form, ${ }^{2}$ wavy lines, ${ }^{3}$ rows of zigzag lines, ${ }^{4}$ chequers, ${ }^{5}$ rows of dots, ${ }^{6}$ and, of course, plain horizontal bands.

Some of these ornaments are further developed in the postMycenaean geometric style. For instance, a row of lozenges joined at the angles is ornamented with dots and made into an
${ }^{1}$ See above the mourners on each side of the bier, in panels at the back of the vase, and in the background of the chariot frieze. For primitive geometric parallels, cf. Wide, Ath. Mitt. XXI, 1896, pl. XV; Schmidt, Schliemann's Sammlung trojanischer Altertümer, pl. V, 4973, and p. 4; Myres, Handbook of the Cesnola Collection, Nos. 186, 196, 197, 198, 200. For Mycenaean and Minoan parallels, cf. Furtwängler und Löschcke, Mykenische Vasen, pl. XXX, 318, 325, XXXV, 357; Hawes, Gournia, pl. XII, 20 a, 29, 34.
${ }^{2}$ See between the mourners and elsewhere. For primitive geometric parallels, cf. Schmidt, op. cit., p. 4, pl. IX, 5421; Myres, op. cit., No. 45; for Mycenaean parallels, cf. Furtwängler und Löschcke, op. cit., pl. XXVII, 223, XXXIII, 316.
${ }^{3}$ See the horizontal band at the back of our vase. For primitive geometric parallels, cf. Schmidt, op. cit., p. 4; Myres, op. cit., Nos. 117, 193, 240. For Minoan and Mycenaean parallels, cf. Furtwängler und Löschcke, op. cit., pl. I, 6; British School Annual, IX, p. 311, fig. 9; Hawes, Gournia, pl. F.
${ }^{4}$ See the horizontal band on the lower part of the body. For primitive geometric parallels, cf. Schmidt, op.cit., pl. V, 5075, pl. IX, 5418, 5535; Myres, op. cit., No. 280. For Mycenaean parallels, cf. Furtwängler und Löschcke, op. cit., pls. XX, 141, XXVII, 222, XXIX, 251, 255.
${ }^{5}$ See the cover hanging over the bier. For primitive geometric parallels, cf. Myres, op. cit., Nos. 177. 188, 203. For Mycenaean parallels, cf. Furtwängler und Löschcke, op. cit., pls. XXXIV, 341, XXXIX, 402.
${ }^{6}$ They are used on our vase both as horizontal bands and as ornaments for filling spaces. For primitive geometric parallels, cf. Schmidt, op. cit., pls. I ff., passim; Myres, op. cit., Nos. 100, 137. Rows of dots occur constantly in Minoan and Mycenaean art, cf. Hawes, Gournia, pl. VII, 18, 26, 29, 30, 31; Furtwängler und Löschcke, op. cit., pls. XX, 146, 148, XXVII, 208, 212.
effective border; ${ }^{1}$ and triangles ornamented with cross-hatchings are enclosed in squares and arranged in pyramid form. ${ }^{2}$

Two ornaments employed on our vase are used in the primitive geometric art but not in Mycenaean times; these are shaded zigzag lines ${ }^{3}$ and the swastika. The latter occurs on spindlewhorls of early Trojan pottery in quite simple form; ${ }^{4}$ on our vase it is more elaborate, being drawn double and ornamented with shaded lines. ${ }^{5}$

Of the circle ornaments on our vase the simplest form, the circle with centre, occurs in the early geometric pottery ${ }^{6}$ as well as in Minoan art. ${ }^{7}$ The dotted circle with centre and the wheel ornament have exact' parallels in Minoan and Mycenaean art. ${ }^{8}$ The more complicated design of concentric circles containing a cross and triangles and with points round the outer circle ${ }^{9}$ is clearly elaborated from Mycenaean prototypes. ${ }^{10}$ The fourleafed ornament, which occurs in panels at the back of our vase, is another motive inherited from Minoan and Mycenaean art ${ }^{11}$ and popular in Dipylon pottery.

A curious ornament consisting of a concave arc resting on three legs and decorated with shading, cross-hatching, and rows of dots, occurs once on our vase in the chariot frieze. It does not to my knowledge occur elsewhere in that form either on Dipylon

[^134]or earlier vases, though its component parts are, of course, familiar. ${ }^{1}$ It has somewhat the appearance of a cauldron resting on a tripod.

The most important new contribution which the geometric artist made to the repertoire of ornaments was the meander. Not only did this become, in its manifold forms, one of the commonest and most characteristic decorations of his own vases, but it continued its great popularity during classical times. The double form, which occurs on our vase as a horizontal band round the neck, is' especially rich and effective. The employment of birds and ibexes merely as ornaments, with no reference to the scenes in which they are placed, is also peculiar to the Dipylon style. In Minoan and Mycenaean art, birds and ibexes of course occur, but they are there drawn much more naturalistically, and are not reduced to mere decorative ornaments. ${ }^{2}$ Birds occur in a number of places on our vase; sometimes they are painted in silhouette, sometimes in outline with shaded bodies or with indication of wings. Two ibexes are placed below the bier.

The second vase (Plates XXI, XXII, and XXIII, 2 and 3) is not in so good a state of preservation as the one just described. There are more pieces missing, especially around the handles, and the paint has in many cases either disappeared altogether or become very faint; so the details are often difficult to distinguish. The subjects of the figured scenes are the same as in the vase just described; that is, in the principal frieze between the two handles on the front of the vase is a funeral, with the deceased laid out on a bier surrounded by mourners. Instead of one frieze of chariots running round the circumference of the vase there are two. Moreover, there are a number of smaller differences in the two representations. The deceased is characterized as a warrior by the crested helmet which he wears. At his head and foot are two diminutive mourners, one standing, the other seated. Below the bier six women are represented sitting on stools raising their hands to their heads. Their sex is indicated by the breasts which appear one on either side. The cover over the bier may here be meant for a canopy as it is

[^135]supported by posts. ${ }^{1}$ The row of mourners on the right of the bier consists of warriors wearing crèsted helmets, and carrying swords; ${ }^{2}$ they do not raise their hands to their heads. The mourners on the left of the bier are women in the usual attitude of lamentation. The chariots are of the same type as in the other vase, except that the wheels have eight spokes instead of four, ${ }^{3}$ and that both front and back pieces are open, not solid. In the upper frieze there are two horses to each chariot; in the lower there is only one, except in two cases, where there are two. On three of the chariots are mounted two persons, twice two warriors and once a warrior and a smaller figure, perhaps his son; on the rest of the chariots there is only one warrior. The full equipment of each warrior is a crested helmet, a large shield of Boeotian type, a sword, two spears, and the whip he holds in his hand. Many of the warriors, however, are represented without shields, and several have only their helmets to indicate their military. character. In the frieze between the two handles on the back side of the vase the decoration is not confined purely to geometric ornaments, but warriors are introduced between the circle ornaments.

The geometric ornaments employed on this vase, both for filling empty spaces and as independent compositions, are mostly the same as those described in the other vase, though new combinations are frequently introduced. Thus a favorite ornament in the background of the chariot friezes is a lozenge filled with chequers; the large circle-ornaments between the handles at the back of the vase enclose eight-spoked wheels, not crosses, and rows of birds and quadrupeds are introduced between the warriors in the funeral scene. There are three ornaments which do not occur on the other vase: a row of leaves, which forms one of the lower horizontal bands, an eight-armed swastika, and two

[^136]triangles joined at their apexes, which are introduced as single ornaments in a number of places. The leaf decoration is borrowed from the Mycenaean style. ${ }^{1}$ The eight-armed swastika, which is rare in the Dipylon and more frequent in the Boeotian style, ${ }^{2}$ may be derived either from the combination of two fourarmed swastikas, or, as Poulsen points out, from the Mycenaean starfish. ${ }^{3}$ The hour-glass ornament formed by the two triangles is frequent throughout the Dipylon style, ${ }^{4}$ but does not occur in that form earlier.

The technique of these vases is that prevalent during the Dipylon style. Both are wheel-made and of a carefully sifted light red clay, covered with a reddish yellow slip, lustrous on the outside. The paint is lustrous and blackish brown, occasionally becoming reddish brown. ${ }^{5}$ There are no traces of white used as an accessory color.

That the Dipylon style did not suddenly appear in Attica in the highly developed form in which we see it in our two vases, but was preceded by vases of simpler type, has been conclusively shown by the discoveries made in the Acropólis and Eleusis tombs. ${ }^{6}$ That such magnificent vases as ours, with elaborate figured scenes, should form the climax of this style, and therefore be dated towards the end of it, is not only probable from the nature of the case, but also because they are so clearly the prototypes from which the Early Attic (Proto-Attic) vases are derived. A good intermediate example between the two styles is an amphora from the Ceramicus in the Athens Museum. ${ }^{7}$ We may therefore take the eighth century as the probable date of our two vases. Both in shape and in decoration they are closely allied to the "Hirschfeld" krater in the Athens Museum. ${ }^{8}$ This is especially the case with the smaller of our two vases, which is so similar to the "Hirschfeld" krater that the two must certainly have come from the same workshop.

[^137]In conclusion, it may be interesting to consider what is the contribution made by Athenian geometric art-in the stage represented by our two vases-to the history of Greek art as a whole. The above analysis of geometric ornaments shows that the majority of them were not invented by the Dipylon artist but were borrowed from his predecessors. Only a few originated with this later geometric art, and of these at least one, the meander, became a favorite ornament in classical Greek decoration. But though we can trace the origin of many single ornaments to earlier times, the systematizing of such ornaments into elaborate designs and the evolution thereby of a new, distinctive style, was, of course, entirely new. In doing this the geometric potter showed a marked feeling for decoration; for though he repeated the same ornaments over and over again, he showed great ingenuity in the almost infinite combinations he devised. His chief fault was his strongly developed horror vacui, which made him overcrowd his surfaces with irrelevant material and thus present a confused picture. His treatment of the figured scenes is obviously crude. There is no attempt to study the human figure as it is, or to solve the problems presented by bodies in motion; and there is, as we have seen, no knowledge' of perspective. The very introduction, however, of the representation of human beings on pottery was of prime importance to the history of Greek pottery. ${ }^{1}$ Once introduced, such representations occupied the attention of Greek vase painters more and more, until from the sixth century onward they became his exclusive theme. The absorbing interest, therefore, of these pictures to us is that they stand at the head of a long line of representations in Greek ceramic art. Gradually, during the two or three following centuries the Greek vase decorator, following modestly but closely the advances made by the great painters, was able to solve all the problems which were too much for the maker of our vases; and these problems were then solved for the first time in the history of art.

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## THE PENTHESILEA MASTER

## [Plates XXIV-XXX]

When Furtwängler published the interior of the Penthesilea Cylix in Munich (Fig. 1), ${ }^{1}$ he was inclined to attribute the work not to an ordinary vase painter, but to some great wall painter of the Polygnotan era, so splendid was the composition and execution of this


Figure 1.-The Penthesilea Cylix; Interior great cup. The publication of the exterior of this vase, however, which followed shortly after, brought with it a retraction of this view, ${ }^{2}$ and the statement that the master of the Penthesilea cylix was not only an ordinary vase painter but that he was also a very active one whose influence was felt from the end of the severe style to the beginning of the free style. Furtwängler cited further a long list of vases from the hand of this master, compiled by Hartwig; ${ }^{3}$ they were thirteen in number, comprising experiments in the white ground tech-
${ }^{1}$ Furtwängler-Reichhold, Die Griechische Vasenmalerei, I (1904), pl. VI, pp. 31-35.
${ }^{2}$ Furtwängler-Reichhold, op. cit. I, p. 282, pl. 56. .
${ }^{3}$ Hartwig, Meisterschalen, p. 491 Anm.; Furtwängler-Reichhold, I, 283. The list is also repeated in A.J.A., 1909, 149 ff .
nique and the employment of colors on the ordinary clay. One of these works was executed in the factory of Euphronios; others showed the influence of the sculpture of Phidias and of the wall painting in the Polygnotan era. Two points stood out clearly in Furtwängler's account of our master; first, that he was a great transitional artist who frequently transcended the limits of ordinary vase-painting by a certain largeness of style; secondly, that his exteriors were often hasty and showed a certain fondness for youths with horses.

Neither Hartwig nor Furtwängler gave to this master any name other than the Penthesilea master from his greatest work. More recently Perrot has wished to identify him with Brygos ${ }^{1}$ because of a certain similarity in composition combined with a like freedom in execution and a fondness for color. One of the best discussions of our master is by Buschor, ${ }^{2}$ who terms this artist the "Pferdemeister." His predecessor and model in the factory of Euphronios was Onesimos who also had a predilection for horses. Furthermore, although the exteriors of the "Pferdemeister" are more hastily executed than the interior designs, both are by the same artist; the Penthesilea Master and the "Pferdemeister" are in no wise to be distinguished from one another. In Buschor's opinion, the Orpheus cylix found on the Acropolis forms the bridge connecting the exterior and interior of these vases with the hand of one master.

The present article is an attempt to add a number of vases from the hand of this master to the collection already existing. An examination of Greek vases in our leading museums shows that America possesses almost as many examples of this painter's work as Europe. Furthermore, these vases indicate that the Penthesilea master was interested not only in various techniques but also in different shapes for his vases. My list adds cotylae, a pyxis, a cylix without the foot, one with a cover, one with a very deep bowl and offset neck, and a kalpis. I hope in addition to show that the style of the Penthesilea master is individual and apart from that of Brygos, and that he was probably the head of a great factory. ${ }^{3}$

[^139]As the cylix is the form commonly employed by our master we shall consider first the cylices coming from his hand.

1. Cylix in the Boston Museum of Fine Arts. ${ }^{1}$ Diam. 0.270 m .

Interior: (Fig. 2). At the left, a youth with mantle drawn up at the back of his neck and thrown over his left arm and cane in front, leans on a staff and converses with a seated woman. She wears a black bordered himation over her chiton and a covering


Figure 2.-Cylix in the Museum of Fine Arts, Boston; Interior
over her head. In her hands she holds out two round objects, owe my thanks especially to Mr. L. D. Caskey, Curator of Classical Antiquities in the Boston Museum, to Miss Gisela M. A. Richter, Assistant Curator of Classical Antiquities in the Metropolitan Museum, and to Mr. Ashton Sanborn for aid in innumerable weys in my work in the Boston and New York Museums.
${ }^{1}$ I am indebted for this reference to Mr. L. D. Caskey who informs me that Mr. J. D. Beazley assigned the cylix in question to the Penthesilea Master.
presumably apples. At the extreme left in the field is a table with a flask or jug upon it; in the middle of the field, a fillet is hung.

The youth's hair is long and curly and like the woman's is done with a thinned varnish about the face and at the ends. Characteristic of both figures are the pouting lips, the eye of the developed transitional type without the line over the upper lid and the nostril line which gives a pinched effect to the nose. No relief lines are used for the profile. The pattern surrounding the design is the double meander, in groups of nine, ten, and eleven meanders with red cross squares.

Exterior: (a) Two pairs of satyrs and Maenads (Plate XXIV). At the left a bald-headed satyr, left hand extended in rear, right held out towards a Maenad before him, moves slyly toward her. She withdraws hastily to the right. In her right hand she bears a thyrsus, in her left a wine skin. She wears an Ionic chiton with a kind of apron, and a kerchief binding her hair. At the right a second satyr brandishing a thyrsus in his right and a keras in his left hand, approaches left toward a second Maenad. Her right hand holds a thyrsus, while her left is concealed beneath her garment.
(b) Almost the same design is repeated on (b) except that the figures are interchanged. The first Maenad wears a cap, the second a dotted kerchief. One satyr appears to be beating time with his hands as if for dancing. Around the design is a simple reserved circle.

Under each handle is a single palmette with tendrils and a vine leaf; on one side beside the leaf, an ivy spray. The execution of the whole vase is hasty.
2. Cylix in the Bibliothèque Nationale, Paris, ${ }^{1}$ formerly in the possession of the Duc de Luynes.

Interior: Maenad, head turned to left, wearing chiton and himation, rests her thyrsus, held in her right hand, on the ground.

Exterior: (a) Bearded man at left clad in chiton with himation thrown over left shoulder, and with staff in right hand, converses with a woman who moves away hastily to right with both hands outspread as if in protest. She wears a chiton with a border of dots that passes around the neck, down the middle of the

[^140]sleeve, and around the waist. Over the chiton is worn an himation with black border. The scene is interpreted as Athena fleeing from Hephaestus, but there are no attributes to suggest a mythological significance. The hair of the man is long, ending in curls, and his head is bound round with a fillet; the woman's hair is done into a low knot on her neck with a fillet passing around her head. The outspread hands, profiles, lips and hair are characteristic of our master.
(b) Bearded man wresting a lyre from a youth, interpreted as Apollo and Hermes disputing the lyre, again with no attributes for the figures save the lyre which might belong to Apollo. At the left a bearded man with hair bound with a fillet and done in a low knot holds a youth with his left hand and moves as if to take his lyre with his right hand. The man is nude, except for a rantle across his shoulders, and the youth is entirely nude, with a black bordered mantle thrown over his left arm. The position of the elderly man suggests intoxication. An inscription is thrice repeated, in two lines in each case, and evidently intended for $\dot{o} \pi a i ̂ s ~ \kappa a \lambda o ́ s, ~ t h o u g h ~ t h e ~ l e t t e r s ~ a r e, ~ v e r y ~ c o n f u s e d . ~$. Characteristic of our master is the long hair ending in curls, the typical profile and the treatment of anatomical details.
3. Cylix in the Boston Museum, with offset lip, deep bowl and relatively large foot. Height 0.155 m. ; Diam. 0.224 m. ; Shape, Br. Mus. Cat. II, p. 5, fig. 16.

Interior: Maiden with staff in right, oenochoe in left, stands with body facing front, head to left. She wears an Ionic chiton with a black bordered himation above and a dotted kerchief around her hair. Around the design a simple circle.

Exterior: (a; Plate $X X V$ ) Maiden between two youths in conversation. She wears an Ionic chiton with overfold and a mantle drawn up over her head at the back. Her hair is done in a high knot with a fillet reserved in the color of the clay. Her right hand is raised, though both hands are concealed beneath the drapery. She stands in a frontal position with head turned to right engaging the youth at the right in conversation. He wears a mantle which leaves his right shoulder bare, and rests a staff on his left hand, holding out an empty wine skin in his right. The youth at the left is represented in profile view. His mantle leaves his right shoulder bare, and he holds out some object, now missing, in his right hand.
b; (Plate XXVI) Scene similar to (a), though somewhat less
careful. In the centre is a maiden wearing a sakkos with a small circle and dot in the centre of it. She is clad in an Ionic chiton under an himation with border of black dots; little of the chiton is visible, the himation almost enveloping her. She converses with a youth to the right who leans his chin on his right hand while his left hand is covered by his mantle. His breast and right shoulder are bare. At the left is a second youth with mantle over his left shoulder, leaving the right shoulder bare.

The work of this cylix is very fine. The drawing of the maiden in (a) is especially well rendered, the relief lines of the drapery showing good workmanship. Above the designs and immediately below the offset lip a fine egg pattern passes around the vase. Beneath the handles a double palmette with spirals and single palmette from each side, separates the design. The potter's work, as well as the painter's, is of splendid quality. Typical of our master is the dilute wash for the hair and the muscles, the profiles, palmettes, etc. ${ }^{1}$
4. Cylix in the British Museum. ${ }^{2}$ The cylix is one of unusual dimensions, as are many of the vases of this master, but the drawing is rough and careless. Brown is used for inner markings and for the folds of the dress of Eos. Beneath the handles are single palmettes with tendrils.

Interior: Eos pursuing Cephalus. At left Eos, wearing a dotted Ionic chiton undergirt, a dotted cap and an himation over her shoulder, runs to right, wings folded, and seizes Cephalus who flees, looking back. The composition is similar to that found in (b) of 2. Cephalus wears a mantle which leaves the right shoulder free. His long hair is looped up over his ears with curls about his face.

The exterior represents groups of men and youths conversing. All the figures wear mantles which leave the right arm free.

The figure of Eos is similar to figures which we shall note later; Cephalus is the typical youth of the Penthesilea master. The interior is enclosed within a circle of sets of seven to ten meanders separated by red cross squares.
5. (Plate XXVII) Fragmentary cylix in the possession of Bryn Mawr College (R. 1827), from Orvieto and once in the Bour-

[^141]gignon Collection, Diam. $9 \mathrm{in} .=0.228 \mathrm{~m}$. The figure in the interior of this cylix is similar to the figure of Eos in 4. Within a circle composed of sets of six and seven meanders separated by red cross squares, a Victory flies toward an altar at the right. She wears an Ionic chiton, a black bordered himation draped over her left shoulder: and a dotted cap. In her right hand she carries an oenochoe, in her left a phiale. The fire on the altar is done in a purplish tone and there are marks of sacrificial blood on the altar in the same color. The Eos of 4 is especially similar to the Victory of our cylix in the proportions of the figure, the treatment of the wings, the profile, sakkos and the like.

Exterior: Scenes of combat between Greeks and Amazons.
(a) In the centre a bearded warrior wearing helmet, and cuirass over a short chiton, is attacked by an Amazon to the right and has fallen on his knees. His shield is held on his outstretched left arm, the inner side facing out; his right hand holds a sword, the tip of which is planted in the ground. At the right a trim Amazonian figure clad in Scythian garb and wearing a quiver rushes on her opponent raising her axe over her head with both hands ready for a blow. At the left the legs of a third figure are visible. Two circles around the shield are incised.
(b) In the centre a fallen Greek with helmet, cuirass, and a shield with a serpent as emblem, brandishes a short sword in his upraised right hand and combats a warrior at the left. Of this opponent only the legs and foreshortened shield with spear point remain. At the right a figure wearing anaxyrides draws a bow; the left_foot is forward and the weight rests on the right foot.

Under the handles is a palmette with tendrils, from each side of which another palmette rises. A second palmette was probably above the central one.

The technique of the Bryn Mawr vase is strongly reminiscent of vases assigned to Onesimos, ${ }^{1}$ with whom our Master worked in the factory of Euphronios. The exterior of the vase may have been painted by Onesimos. Especially the relief lines about the profiles, which the Penthesilea Master does not use, are characteristic of Onesimos, no less than the poses of the figures, the drawing of hands, of feet, and upper eye-lids.
6. With the two vases just discussed should be compared the cylix in the Museum of Natural Sciences in Philadelphia,

[^142]already published. ${ }^{1}$ This vase is similar in subject matter to 4 and in execution is very close to 4 and 5 .
7. Cylix in the Metropolitan Museum, New York. The form is that of the cylix with offset lip, no stem, and a very low foot.
(a; Fig. 3) Eos pursuing Cephalus. At the left a youth, wearing a mantle which covers his left hand and leaves his right shoulder bare, moves hastily to the right. His hair is long, ending in curls, and is treated like Apollo's on the Tityos cylix in Munich. He holds out a lyre in his right hand. At the right Eos with folded wings runs hastily toward him and grasps


Figure 3.-Cylix in the Metropolitan Museum
him with her right hand. The left hand is outstretched in a fashion characteristic of our master. Eos wears the Ionic chiton undergirt. The position of the left leg of the youth is also to be noted here as a favorite position which the Penthesilea master often affects, the knee turned in and the ankle thrown forward; this is best seen on the exterior of the Penthesilea cylix.
(b) Scene similar to (a). Eos pursues Cephalus with both hands outstretched. She wears the sakkos in this case, whereas ${ }^{1}$ A.J.A. 1909, p. 142.
in (a) her hair is done in the fashion of Apollo's on the Tityos vase.

Beneath each handle, single palmettes with tendrils and palmettes from each side. The likeness in detail to the exterior of the Penthesilea cylix and the interior of the Apollo and Tityos vase is very striking in this example. ${ }^{1}$

8 and 9. Cylices in Philadelphia in the Pennsylvania University Museum. ${ }^{2}$

8, Interior: Two women clad in the chiton and himation. The one at the left wears a sakkos and looks in astonishment at the other who tosses an object in her left hand, perhaps in juggling. ${ }^{3}$ Around the design, meanders with red cross squares. An unusual feature is the decoration of ivy leaves in red just within the rim.

Exterior: Two groups of five individuals; youths swathed in mantles which leave the right arm free, in conversation with women garbed as within. Beneath the handles, palmettes in triangular arrangement with tendrils and ivy leaf. The vase is defaced in part.

9, Interior: Two youths wrapped in himatia, conversing. The one on the left leans on a staff:

Exterior: Two groups of three figures each. In the centre in each case is a Victory with a youth on either side. The youths have mantles which leave the right shoulder bare. On one side the Nike wears a cap, a dotted chiton and himation, and she flies with spread wings. In front of her is a stool. Near the palmette is an olive branch, just as there is in 1 an ivy branch. Mr. Bates notes the pouting lips, the treatment of the eye, and the ivy wreath around the rim of 8 as characteristic of our master. He regards the work, however, as well as that of the Hamburg cylix, as coming from the school of the Penthesilea Master.
10. Cylix in the Metropolitan Museum, New York. ${ }^{4}$ In-

[^143]terior: Girl being taken to school (?). Exterior: Women in conversation. The vase is stylistically very near to those just described.
11. Cylix in the Thorwaldsen Collection, Copenhagen. ${ }^{1}$ Interior: Youth and woman in conversation. Clad in a mantle which leaves the right shoulder bare, and leaning against a knotted stick, a youth entreats a maiden before him, holding out his right hand. In his left hand he has a purse. She moves hesitatingly toward him from the left, clad in chiton and himation. Both wear fillets. Behind the youth, a stool, on the wall an alabastron. In the field between the two figures a fillet.
 sigma. Around the design, five double meanders followed by red cross squares.

Exterior: Scene similar to that in the interior-six groups of two figures-one consisting of two women, the others of a youth and a maiden. They are dressed like the figures on the interior; the youths wear mantles which leave the right shoulder bare, and fillets, and often have canes. They entreat the maidens before them for favors. One shyly holds her mantle behind her back, another stretches out her left hand in refusal.

Group 2, side a, is similar to the interior of 1. A youth with a black bordered mantle wrapped about him leans on a staff and holds out an apple in his left hand toward a seated woman. She wears chiton, himation, and sakkos, and has an apple in each hand.

Group 2, side b, presents a juggling scene similar to the interior of 8. At the left a woman seated on a stool is juggling balls or apples before a standing woman clad in chiton, black bordered himation, and sakkos. The woman standing also holds an apple in her hand.

Around the exterior twice repeated on each side in two lines is the inscription, $\delta$ aaîs кa入ós, with the sigma done in four strokes.

The marks of our master are evident in many mannerisms, notably the profiles, the trick of pointing the forefinger, found also on the cylix in Hamburg, the inscription, meander pattern, mantles drawn up at the back of the neck and having black borders, and the well known figure of the woman wearing the sakkos. The eye is slightly more advanced than in the cylices

[^144]hitherto noticed, with a stroke over the upper lid in some cases.
12. Cylix with cover in Boston Museum. Exterior in the red-figured style, cover in the white ground technique. ${ }^{1}$

Interior; cover (Plate XXVIII): Around the edge a pattern of laurel wreath with berries is left against the red ground and a curious opening has been made, doubtless in imitation of the human mouth. On the inner edge are the remains of teeth-like projections now broken away in part.

The interior design is enclosed within a brown circle and represents Apollo in the company of a seated Muse. ${ }^{2}$ At the left the slender elongated figure of Apollo stands facing toward the front with head turned to right. He holds a dark red mantle behind his back, upheld in his left hand and resting on his right shoulder. His right hand grasps the garment which conceals it from beneath. The god's head is wreathed with laurel which was once gilded although only faint traces of the gilding now remain. The hair is caught up in the rear by this wreath and ends in curls. These, together with the curls about his face, are done in a thinned yellow varnish. At the right a Muse sits upon a rock that is outlined in a dilute wash, part of which has disappeared. She wears a brown peplos and rests her chin upon her right hand, holding a lyre in her left. The rim of the lyre is in relief and was once gilded, as was the bracelet worn on her right arm and, in all probability, the pin on her shoulder. Her hair is combed back from the forehead, except for a few locks about the face, in the fashion of the youth on the Berlin cup; ${ }^{3}$ It is rendered in a thinned yellowish brown varnish. The figures rest upon an exergue with a single meander pattern. Plastic dots once gilded occur four times on this design. The scene is one of unusual charm and deserves to be ranked as one of the finest specimens from the hand of our master in the white ground technique. The marks which betray his hand are evident first in the figure of Apollo. Compare with this figure the youth on the interior of $6,{ }^{4}$ where the same slender proportions and a like treatment of anatomical details is found. The

[^145]profile of Apollo, especially in the lips and the treatment of the hair are reminiscent of our master, no less than the garment upheld in the left hand and covering the right, ${ }^{1}$ and the treatment of the foot in a frontal position. ${ }^{2}$

The exterior (Fig. 4) shows even greater similarities. On either side is the figure of a woman moving hastily to right and looking back to left. She wears a chiton with black bordered himation in each case and holds in each hand a branch with spirals, ending in a vine leaf. The figure is very similar in movement to the figures of the Maenads in 1 and to the women on the exterior of 11 in details. Beneath each handle a pal-


Figure 4.-Cylix in the Museum of Fine Arts, Boston; Exterior
mette projecting into secondary palmettes with tendrils on either side.
13. Fragmentary white ground cylix in the Boston Museum. ${ }^{3}$ The vase must have been one of unusual size, approximating the Penthesilea cylix in dimensions. Diam. of foot, 0.115 m . A plastic ring passes around the top of the foot; on the lower side two concentric circles in black paint, a wider and narrow, with a third where the stem begins. The exterior was probably dec-

[^146]orated with designs in the red-figured technique but only a small edge in the color of the clay remains.

Interior (Fig. 5): Quarrel between two men. The scene may be the dispute between Diomedes and Odysseus over the Palladium. At the left against a white ground a bearded warrior draws his sword from his sheath with his right hand. He is shown in three-quarter back view and is nude except for a red mantle across his right shoulder and a red strap which held his sword sheath. On his back the end of a petasus together with the cord which held it is visible. The left hand held a spear, while the right, seen in back view, grasps the sword; the sword


Figure 5.-Fragment of a White Ground Cylix; Boston
handle is in relief and may once have been gilded. Above on the right arm is a bracelet in relief, probably once gilded.

At the right is a second figure. A red mantle passing behind his back rests on the forearms in front. His right hand grasps a spear (?), his left is missing. It may have held the palladium, as a bit of relief once gilded is seen just at the elbow. The sword sheath is done in red. The upper and lower parts of the figure are lost.

The painting recalls the work of the Penthesilea Master in the yellowish brown beard done-in a dilute wash, in the drapery, and in the muscles of the trunk. Most characteristic is the rendering of the right hand which holds the spear; it is like Apollo's on the

Tityos vase or that of Ajax on the Penthesilea cylix. There is a splendid dramatic quality about the composition which also recalls our master and the work is probably to be assigned to his hand.

## Cotylae

14. Cotyle in the Metropolitan Museum, New York.
(a; Fig. 6) At the left a bearded man wearing a cap, a dotted chiton with dotted border, and over this a blackbordered himation, holds out a sheathed sword in his right hand toward a youth who moves hastily to right. In the youth's


Figure 6.-Cotyle in the Metropolitan Museum; Side A
right hand is a helmet, in his left a spear. He wears a mantle fastened on the shoulder, leaving the right arm bare, and a sword. On the man's left arm a spear rests with point on the ground. The scene is interpreted as Odysseus and Telemachus. Brown is used on the hair and beard of the man and on the hair about the youth's face. Quite characteristic of our master are the treatment of the nostril, the protruding lips, and the pose of the youth's right leg.
(b; Fig. 7) Scene similar to (a). At the right a nude youth holds out a helmet in his right hand toward a bearded man. Over the youth's left shoulder is a mantle. In his left hand he holds a spear pointing downwards. The bearded man
who stands before him is given with body in full front view, head to right. A mantle is thrown over his left shoulder and drawn across his body in front with his right hand. In his left hand he holds a spear, point down. The beard is rendered in dilute brown and the eye is a large round circle with a dot in the centre. Between the two figures the inscription $\dot{\delta} \pi a i ̂ s ~ \kappa a \lambda o ́ s ~ i s ~$ given in two lines.

Beneath the handles are two palmettes with tendrils. The work of the whole vase is exceedingly hasty.
15. Cotyle in the Boston Museum, ${ }^{1}$ found at Vico Equense,


Figure 7.-Cotyle in the Metropolitan Museum; Side B
formerly in the Bourgignon Collection. Diam. $27 \frac{1}{2} \mathrm{~cm}$., height $22 \frac{1}{2} \mathrm{~cm}$.
(a; Fig. 8) In the centre, Persephone rises from the earth clad in a Doric peplos with overfold girt round the waist. She wears a sakkos with a row of dots and looks to right, lifting her garment with both hands. The figure of Persephone is to be compared with the maiden in 3 b , the Eos of 4 , the Victory of 5, and the Eos of 7 b ; the motive of lifting the garment, with the figure of Ge on the Tityos cylix in Munich. At either side of Persephone goat-headed demons with the bodies of men dance, looking toward the central figure. They have the ears and pointed horns of

[^147] 'Die Wiederkehr der Kora'; A.J.A. 1905, p. 157, P. Baur, 'Tityros.'
goats and manes like horses, done in a reddish wash. Above the head of Persephone, an ivy branch with berries is seen in the field.
(b; Fig. 9) Satyrs and Maenad. In the centre, a Maenad with a cantharus in her outstretched right hand and a thrysus over her left shoulder, clad in a sakkos and the Doric peplos with overfold girt up at the waist, moves hastily to left looking back to right. At the left a bald-headed satyr dances moving to right; in his left hand a thrysus with the tip on the ground. The foreshortening of the satyr's leg is unsuccessful. At the right a


Figure 8.- Cotyle in the Museum of Fine Arts, Boston; Side A
satyr dancing with his left leg raised, reaches out both hands toward the Maenad.

Around the top of the cotyle is an ivy pattern which is similar to the pattern found around the interior of the Penthesilea and Tityos cylices. The leaves are left in the natural color of the clay, the berries and stems are a yellowish white. Below the designs a meander pattern in sets of 11 and 13 meanders with red cross squares (4) passes around the vase. Beneath the handles one palmette rises above another, with tendrils and secondary palmettes from each side. The work on the cotyle is very hasty but shows obvious connections with the Penthesilea

Master. Especially characteristic is the treatment of anatomical details seen in the satyrs.

16 (Plates $X X I X, X X X$ ). White ground pyxis in the Metropolitan Museum, New York, representing the Judgment of Paris. ${ }^{1}$ In the centre of the design the youthful Paris is seated on a rock resting his right hand on his right knee and his left hand upon a knotted club. He wears a reddish brown chlamys with red border, and a petasus tied round his neck and resting on his back. On his legs are high brown shoes with white accessories. His hair is done in a yellowish brown wash and his profile leaves no


Figure 9.-Cotyle in the Museum of Fine Arts, Boston; Side B
doubt as to his connection with our master. Before him stands Hermes similarly garbed, with his caduceus in his right hand and his left hand open in gesture. He is followed by the three goddesses. " Hera comes first, elaborately dressed in an Ionic chiton with deep overfold and a pattern of crosses. Over this garment a reddish brown himation with a white pattern and border of deeper red is worn. On her head is a crown and a dotted veil, recalling the headdress of Ge on the Tityos cylix; in her right hand she holds a sceptre. The figure is posed in a frontal position with the head turned to the left. Facing Hera is Athena ${ }^{1}$ Bull. Metrop. Mus. III (1908), p. 154.
wearing a reddish brown Doric peplos with red border and a white pattern. Her aegis covers her breast and she is crowned like Hera. In her left hand a helmet is held similar to that found on $6,14 \mathrm{a}$ and b ; in her right a spear with point resting on the ground. The treatment of the hair of Athena recalls similar work by our master, especially the Tityos cylix. Behind the goddess are Eros and Aphrodite in conversation. The young Eros stands stiffly before his mother holding a fillet in his hands. His wings are done in a fashion similar to that found in the interior of 4 and 5, 7a and 7b. Aphrodite holds a phiale in her right hand and grasps her himation, which is drawn up over her head, with her right hand. She wears the Ionic chiton undergirt and a crown. At the̊ left of Paris is a bearded male figure wrapped in a red bordered reddish-brown himation which leaves the right shoulder bare. He holds out a staff in his right hand. Perhaps he is Priam (?)-or merely a shepherd. In countenance he is reminiscent of the fallen Tityos on the Tityos cylix.

The pyxis is an exquisite piece of polychromatic work against a white ground. Especially frequent is the use of the reddish brown and yellow. A dilute wash is used for the hair. The cover is also beautifully fashioned with a series of meanders and red cross squares around the edge followed by rich palmettes within, while nearest the knob is the egg and dart. On the exterior twice rendered is the inscription $\delta \pi$ aîs кa入ós. It is especially interesting to see that the Penthesilea Master did not abandon the white ground technique of his early days but carried it on into his later style. The profiles, eyes, hair, wings, helmet-all connect our vase with the Penthesilea Master as well as minor characteristics such as the outstretched hand and the mantle which leaves the right shoulder bare. This vase no less than the Orpheus cylix shows a combination of the qualities of the "Pferdemeister" and the Penthesilea Master.
17. Kalpis in Memorial Hall, Fairmount Park, Philadelphia. In the centre of a group of three figures stands a young woman clad in chiton, himation, and snood with a circle on it. She holds a basket in her right hand and converses with a youth at her left, turning her head to the left. The youth has short, curly hair and wears a chiton under his himation. In his left hand he holds a fillet. At the right of the scene is a young girl wrapped in a bordered himation that covers both her hands. Her hair is long and she wears earrings. Behind the central
figure is a stool with striped and dotted cushion. Below the design runs a meander pattern with red cross squares. A reddish dilute wash is freely used, especially on the hair of the central figure.

If we examine details of style found in the works of the Penthesilea Master, they are roughly as follows: the eye is of the developed transitional type, mostly without the stroke over the upper lid; rarely, the circle with the round dot is found, as in the New York cotyle. The nostril is rendered by a single oblique line, straight or slightly curved and giving the nose a pinched look. The lips are pouting and protruding in character. Even in his best examples the artist scarcely escapes these mannerisms in the rendering of nostril and lip. Ears are done in various ways-in the fashion of the letter $C$, upright or again inverted: at times they are rendered with a smaller $c$ within, and with even more complicated details. Not only single details, but also the general shape of the head is individual in our master, and the characteristic profile is without relief lines. Hair is rendered by a dilute wash. Usually it is curly at the ends and about the face. Often it is long and drawn close together on the back below the neck without a band, as Apollo's on the Tityos vase and that of youths on the exterior of the Penthesilea cylix.

The rendering of the trunk muscles is best seen in the figure of Apollo on the covered cylix in Boston and on side (b) of the New York cotyle. They are usually separated into three parts by lines in a dilute wash. The navel is represented by a circle with a black are above it at times. Breasts of men are usually of the type seen in the Boston cylix just mentioned and the cotyle just cited. Nipples are indicated by brown circles. Breasts of women are deep but not prominent, as in the Eos and Cephalus vase in New York. They are commonly indicated by two swelling lines. Hands are rather carelessly drawn. Often they are shown with the fingers outstretched, wide apart, and two lines drawn across the palm next to the fingers. At times the finger points outward as in 5a, 11, Furtw.-Reich. 56.

Knees are often turned in, throwing the outer side of the foot forward. The feet are usually placed in profile in both cases or in full front view-very rarely with a combination of the two. Ankles are drawn by a simple curved line or a partially drawn ellipse.

The meander and red cross squares are used about the design.

The palmette is single with tendrils (cf. Furtw.-Reich., I, p. 280), or double with tendrils and vine leaf. Four times the ivy pattern with berries is used. The inscription is very often in two lines $\delta$ tais кa入ós-at times with the four-stroke sigma. Fondness for sakkoi, snoods or kerchiefs on the hair of women, for mantles on youths and men, leaving the right shoulder free, for the Doric peplos on women and the Ionic chiton with overfold, is shown. The subjects are mostly mythological and erotic.

It is thus seen that the Penthesilea Master was a great innovator. Shapes, techniques, the mythological and genre subject interested him. At times he dashed off a vase hastily with little to recommend it. A certain class of vases show youths in conversation wrapped in mantles like the Würzburg cylices, or erotic scenes-all of trivial value. But when he chose, the Penthesilea Master could rival the works of the great masters of wall painting. In this class beside the Penthesilea and Tityos cylices and some of the white ground vases, such works as the pyxis in New York with the Judgment of Paris, the Boston cylix with Apollo and the Muse, and the deep-bowled cylix in Boston deserve to be placed. They show a certain striving to attain the effects gained by the wall paintings of the time.

The works of our master continually reveal his individualitymore by the profiles of his figures and little mannerisms of style than is the case with most painters. It is true that like Brygos he was fond of color and gold on his vases, that he resembled Hieron at times in the poses of his figures. These things were the common stock of trade for the vase painters of the time and they may in common have taken many ideas from the great paintings of this epoch. Their shops must also have been side by side in Athens and the exhibition of a splendid vase by one master must have brought admiration and imitation by other painters. The considerable number of vases from the hand of our master would suggest that like the prolific Nikosthenes he had a workshop of his own.

Mary Hamilton Swindler.

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## American Sctyool

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at Athens

## REPORT ON EXCAVATIONS AT HALAE OF LOCRIS ${ }^{1}$

Excavations on the site of Halae of Locris were begun in the spring of 1911, at which time it was expected that one, or at most two campaigns, would suffice for the completion of the work; even before the end of the first campaign, it had become evident that much more time would be needed for the thorough investigation of the site. Since then, two wars and their aftermath have caused confusion and delay in this, as in so much else. Now, although opportunity has been found for four campaigns-two of one month's duration each, one of two months, and one of three months-and although more than a little work has been done in the museum at Thebes, where most of the finds have been placed, ${ }^{2}$ the time of final accomplishment is still distant, and another and greater war is rendering uncertain all plans for the future.

It has seemed advisable, therefore, to depart from the original plan for publication, which was to issue, more or less simul-
${ }^{1}$ At the outset, we must express our sincere thanks to those who have helped us: to Mr. Hill, Director of the American School of Classical Studies at Athens-of which institution we are members-for securing our permits, and for helpful advice in the early days of our work; to the Greek government as a whole, for never-failing courtesy, and, very particularly, to certain representatives of that government-Mr. E. Venezelos, formerly Prime Minister of Greece, Mr. M. D. Volonakis, General Secretary of the Ministry of Public Instruction, Mr. N. M. Valanos, Architect of the Ministry of Public Instruction, Mr. Stais, Director of the National Museum at Athens, Mr. Papadakis, Ephor of Antiquities of Boeotia, Phocis and Euboea, and Mr. A. D. Keramopoullos, Ephor of Antiquities of the Acropolis; to Mr. R. M. Dawkins, formerly director of the British School at Athens; to M. Homolle, formerly Director of the French School at Athens, now Director of the Bibliothèque Nationale; to Mrs. Coe von Berlan, of Athens, and her daughters; to Angeles and Georgios Kosmopoulos, at different times our foremen, and to Ioannes Papanikolaou, mender of antiquities.
${ }^{2}$ Some pieces of sculpture, the heavier inscriptions, and a number of typical sarcophagi and burial pithoi are still at Halae. The jewelry is in the National Museum at Athens.
taneously, a series of articles dealing with the various branches of the finished work, and to publish instead a general report upon what has already been accomplished. This will be followed, as soon as possible, by articles dealing with the different classes of finds. In view of the circumstances, it cannot be too strongly emphasized that such a report must necessarily be of a preliminary character.

There is a long promontory which juts out in a northwesterly direction from the coast of Locris, just where the Channel of Atalante begins to widen into the Malian Gulf. The western side of this promontory forms the eastern boundary of a small


Figure 1.-The Bay of St. John
crescent-shaped bay, which has taken its name from the little white church of Hagios Ioannes Theologos (St. John the Divine) upon its shore. Some fifteen minutes to the northwest of the church, there is a low hill whose base is washed by the waters of the bay, ${ }^{1}$ and whose sides are circled by crumbling walls; on this hill was once the fortified citadel of Halae.

The bay of St. John, sheltered by encircling wooded hills, is of depth sufficient to accommodate even the modern steamers
${ }^{1}$ It is a question whether, in ancient times, the hill and the waters of the bay occupied the same relative position. The coast is subject to seismic disturbances, and since the earthquake of 1893 the old road beyond the village of Dragana has remained almost completely submerged.
which, at long intervals, put in to load a cargo of ore from the iron mines back in the hills; of a depth most generous, then, for the light draft vessels of ancient times. Even today, despite its desolation, the harbor is much used by coast traders and fishermen from Asia Minor, who, during the summer months, ply their trade in the neighboring waters. It is not too much to assume that both traders and fishers are heritors of a tradition ages old, and that, in ancient times, Halae had frequent communication with both north and east. To the south, several passes through the low hills afford a means of communication with the Copaïs basin. It was inevitable that a town so situated should have played a rôle, even if a minor one, in the days of the great Greek merchant activity. References to Halae, in ancient authors, however, are infrequent and casual.

Of the earlier history of the settlement, the ancient authors tell us only the fact that, originally Locrian, it later became part of Boeotia. The earliest testimony comes in negative form from Homer, ${ }^{1}$ who in speaking of the Boeotians says:

$$
\begin{aligned}
& \text { Nî } \sigma \dot{\alpha} \nu \tau \epsilon \zeta a \theta \text { '́ } \eta \nu \text { 'A } \lambda \theta \eta \delta \dot{\partial} \nu a \quad \tau \text { ' }{ }^{\epsilon} \sigma \chi a \tau o ́ \omega \sigma a \nu \text {. }
\end{aligned}
$$

Strabo, ${ }^{2}$ in order to indicate the change that had taken place, quotes the end of the passage of Homer: M $\epsilon \tau \dot{\alpha}$ $\delta \grave{\epsilon}$ इàravéa



 'A入ai ó $\mu \dot{\omega} \nu \nu \mu o l ~ \tau o i ̂ s ~ ' A \tau \tau \iota к o i ̂ s ~ \delta \dot{\eta} \mu o \iota s . ~$

Just when the change from Locris to Boeotia was effected we have no certain means of telling, but the further testimony of Strabo ${ }^{3}$ in the case of Larymna is of importance, as we may reasonably assume that Halae followed the varying affiliations of the more important coast town lying to the south east: $\Delta \eta \lambda o \hat{\imath}$







[^149]' $\left.\mathrm{P} \omega \mu \mathrm{a} \hat{\imath} o \iota \tau \grave{\eta} \nu \not{ }^{\prime} \nu \omega\right)$. This curious statement about the division of the two Larymnas is partially explained by what Pausanias ${ }^{1}$ tells




 és Botwroús. In view of the friendly relations existing between Boeotia and Locris, testified to both by historians and inscriptional evidence, ${ }^{2}$ it need not surprise us that Larymna, and with it probably the towns of Halae and Corsea, joined the Boeotian league voluntarily and for considerations of advantage. The time of the rise of Boeotia to supremacy under Epaminondas would best meet the requirements of Pausanias' phrase, $\theta \eta \beta a i \omega \nu$
 from Locrian to Boeotian in this period and tries to connect with it the building of a wall of massive polygonal masonry, traces of which he saw at a spot slightly to the southeast of the acropolis of Opus, now known as the Mills, where the mountains come down almost directly to the shores of the Opuntian gulf. But this can hardly be brought into accord with the statement of Pausanias; for a voluntary change which left upper Larymna in the hands of the Locrians could not have necessitated the erection of a strong defensive wall between Halae and Opus.
${ }^{1}$ IX, 23, 7.
${ }^{2}$ Hellenica III, 5, 3. Weil, Arch. Zeitung, XXXI, pp. 140 ff, gives two metrical inscriptions that are worth quoting in this connection.
$\delta a ̂ \mu o s$ ó Bot $\omega \tau \hat{\omega} \nu$ тov̂ $\delta \epsilon \mu \epsilon \theta^{\prime}$ à $\gamma \epsilon \mu \dot{\partial} \nu o s$
фроирâs $\Lambda о к \rho о i ̂ \sigma \iota \nu ~ \tau \epsilon \hat{v} \xi a \nu$ éd $\epsilon \in \epsilon \epsilon \rho l a \nu$.
à $\sigma \tau \hat{\omega} \nu \in \dot{\nu} \nu \rho \mu i a s \theta_{\epsilon}^{\prime} \sigma \mu L a \pi a \rho \theta \in \mu \hat{\prime} \nu \omega \nu$

[^150]The earliest fixed date at which Larymna appears as a Boeotian city is given by Polybius ( 229 в.c.) : ${ }^{1}$ 'A $\nu \tau i \gamma o \nu o s ~ \mu \epsilon \tau \grave{a} \tau \grave{\nu} \nu \Delta \eta \mu \eta \tau \rho i o v$




The one definitely dated event in the city's history that we know is told by Plutarch, whose account is as follows: ${ }^{2} \Sigma \dot{v} \lambda \lambda \alpha$


 тoîs $\pi \epsilon \rho i$ đò̀ $\Delta i o ́ v \nu \sigma o \nu ~ \tau \epsilon \chi \nu i ́ \tau a \iota s . \pi \epsilon \rho \iota \pi a \tau o v ̂ \nu \tau o s ~ \delta e ̀ ~ \pi \rho o ̀ s ~ \tau \eta ̀ \nu ~ \theta a ́ \lambda a \sigma \sigma a \nu ~$








That a scattered remnant availed themselves of the privilege granted by Sulla, and returned to rebuild their ruined habitations is proved by the fact that both Pausanias and Strabo knew Halae as a town. ${ }^{3}$

After Pausanias we find the name of Halae no more in the ancient written records, but late walls and a ruined church point to the existence of a Byzantine settlement on the site,
${ }^{1} \mathrm{XX}, 5,7$. A detailed discussion of the date at which lower Larymna joined the Boeotian league hardly falls within the scope of this article, but the following additional references will be of interest to anyone concerning himself with the problem. Larymna is counted among the towns of Locris by Scylax Periplus 60 (Geogr. Min. ed. Didot I, p. 48); Lycophron, Cassandra, 1146;

 ă $\rho \chi$ оутos 'A $\rho \chi \iota \dot{\iota} \delta a$ ( 286 в.C.). As this decree may very well refer to a citizen of upper Larymna it has little value as evidence. To the evidence for placing Larymna among the towns of Boeotia may be added an inscription from Lebodeia, I.G. VII, 3078, in which mention is made of three delegates sent by Larymna to the celebration of the $\beta a \sigma t \lambda \epsilon i a$. It falls, according to Vollgraff, between the years 221-216 в.c.
${ }^{2}$ Plutarch, Sulla, 26.
${ }^{3}$ They did not know it as a flourishing one, however. Strabo uses the word $\pi o \lambda i x \nu a$ to describe it, and Pausanias the word $\pi \delta \lambda: \sigma \mu a$, both of which imply little. More eloquent is Pausanias's summary dismissal of the site and his silence regarding matters that usually claim his careful attentionplaces of worship, local beliefs, and the genealogies of heroes.
which continued until a fairly late pericd-possibly until the spread of piracy in the lawless Aegean imperilled the existence of a coast town. Thereafter the place of Halae lay desolate and long-forgotten. Leake, ${ }^{1}$ journeying through the region, recorded of the once flourishing town: "Some ruins like those of Larymna are said to exist at a church of St. John TheologosThey are probably ruins of Halae. 'Leake's identification of the site was accepted, with only one expression of dissent, ${ }^{2}$ by subsequent writers, ${ }^{3}$ and it has since been confirmed by epigraphical evidence. ${ }^{4}$

It was not until the year 1860, however, when Kutorga's account of a journey through the region appeared, ${ }^{5}$ that Halae received detailed notice. His account agrees closely with what was still visible when the excavation of the site was begun in the spring of 1911.

It must have been at about the time of Kutorga's visit that the peasants in the neighborhood learned that the region behind the citadel was full of graves containing objects of pecuniary value. Then began the looting of the cemetery, ${ }^{6}$ which continued to be the steady occupation of certain families until the decrease in the number of graves, and the increase in the vigilance of the authorities in recent years, made the occupation less lucrative, and in consequence less popular.

Our decision to excavate the site was based on the hope that, despite all this destruction, some graves, the contents of which would help to settle certain questions of chronology, might have escaped notice. The hope has been realized. Of the 280 graves that we cleared, many had remained untouched by the looter, ancient or modern; and even those that had been robbed

[^151]sometimes yielded more than enough to repay the labor of excavation.

As regards the citadel, we had at the beginning little thought of more than the most cursory work; but we soon realized that, despite the destruction of the town at the hands of Sulla, and the havoc wrought by the Byzantine settlement, the flotsam and jetsam might yield material, which, taken in conjunction with the evidence from the graves, would serve as the basis for a picture, however imperfect, of life in an ancient provincial community.

The necropolis of Halae lay to the north and east of the ancient town, and, with the exception of some isolated groups of graves, possibly representing family burial plots, which were found in the foot-hills or scattered far afield, most of the tombs were in a line, about a mile in extent, and oriented, roughly speaking, from northwest to southeast. More or less parallel with this line but extending far beyond it there is today a dim and often-disappearing trail through the wheat, which marks the direct route to Larymna; and we may reasonably suppose that the men of Halae, following a custom that was common in ancient Greece, laid away their dead by the side of the highroad, perhaps by the very one along which Sulla came when his destroying armies fell upon "Anthedon and Larymna and Halae."

We have opened 280 graves, the earliest of which date from the middle of the sixth century в.c., the latest from Roman times. The receptacles for interment showed a certain variety. Monolithic sarcophagi of "poros" stone predominate in the sixth and fifth centuries. Hellenistic burials were as a rule found in shallow trenches under heavy cover slabs; although the presence of iron nails in many of these graves suggests that the body may originally have been interred in a wooden coffin, which has now disappeared. Sarcophagi constructed of four separate slabs are characteristic of the fourth century, although in use sporadically at both an earlier and a later date. Pithoi are common at all times. Of the clay larnax and lead jar there are only single examples. It is not impossible that in late Hellenistic and Roman times some bodies were disposed of without enclosing receptacles of any sort; and at this period it also became customary to economize space and material by removing an earlier burial from an existing grave and replacing it by one or more bodies. It may safely be stated, however, that in the majority of cases, until this period, but one interment had taken place in each grave.


Figure 2.-Silver Earrings and Fibulae from the Necropolis of Halae

Few of the graves, save those that had been plundered, and of these not all, were entirely lacking in funeral furniture. The objects used for this purpose varied, however, at different periods: vases and weapons were in favor at all times, and, incongruous as it may seem, a sword was found in a sarcophagus too small to contain anything but the body of an infant. The vogue of the terra-cotta was much shorter, and there was a tendency, especially in the fifth and early part of the fourth century, to place the figurines in large numbers around the sides of the sarcophagus and on top of the cover slabs. Jewelry began to appear in graves of the latter part of the fifth century, in the form of paste beads and of silver and bronze ornaments. Thereafter, ornaments, mirrors, and strigils of bronze, remained long in favor. Gold jewelry was found in one Hellenistic interment. Coins, invariably of bronze, were found in some graves of Hellenistic and later times, and had, as a rule, been placed in the mouth of the dead. The hope, at first entertained, that they would afford evidence for the accurate dating of the graves in which they occurred, has unfortunately been thwarted by the fact that the damp soil of Halae has, in the majority of cases, caused corrosion. Glass, of the opaque variety, was found in Hellenistic graves, while the graves dating from Roman times yielded many specimens of a thin iridescent glass which flakes off when touched.

Only a few general observations on the different classes of funeral furniture are called for here. The vases include examples of late Geometric, so-called Proto-Corinthian, Corinthian, Black Figured, Red Figured, Stamped, White Painted-including the late white-on-black style known as "Watzinger"-NetWork, and Megarian wares; as well as a large mass of the plain black glaze and unglazed wares. Of the style known variously as Boeotian Transition, ${ }^{1}$ Boeotian Geometric, ${ }^{2}$ Proto-Boeotian, ${ }^{3}$ and Boeotian Cylix, ${ }^{4}$. no example has as yet been found. But there came to light numerous examples of a ware which is, so far as we know, unique, and which suggests that the technique of the typical Boeotian ware referred to, influenced by the styles that flourished elsewhere in the Greek world, continued into

[^152]
Figure 3.-Vases ánd Terra-cottas found at Halae

Figure 4.-Vases found at Halae
the latter half of the fifth century. There are also a few frag-ments-found unfortunately under circumstances which furnish no external evidence for their date-which suggest that it may have lasted even longer, until the early part of the fourth century. Specimens of some wares, notably of Proto-Corinthian and Black Figured, were found in comparatively late company. It


Figure 5.-Masks outside of Grave 231
is worthy of note that, although many graves are to be dated in the fifth century, there have been found very few examples of Red Figured ware, while of these only one or two are earlier than the Fine Style. The fact may, of course, be explained by assuming that, in the early days of the style, Red Figured vases were objets de luxe, too valuable to be placed in the graves of any but the wealthy; or by attributing to the chances
of excavation the fact that we did not find the tombs that contained them. ${ }^{1}$ In view, however, of the fact that Red Figured ware is also rare at the Argive Heraeum, Corinth, and Rhitsona (Mycalessus), it seems not improbable that the omission may have some historical significance. ${ }^{2}$

Terra-cottas were found in large numbers in the graves of the fifth and fourth centuries, and while there were a number of interesting individual figurines, the types most frequently represented were those characteristic of Boeotia and Locris: masks in very great variety; seated female figures; the youth with cock, strigil, or aryballus; large standing female figures,


Figure 6.-Plan of the Acropolis of Halae After the Excavations of 1913
sometimes in motion, and frequently holding some attribute, such as the knotted fillet or open casket. As many of the types persisted for a long time, the specimens from Halae form a good basis for a study of their development and decline. More sporadic in occurrence were representations of deities, animals, fruits, and children's toys. Figurines of the fine Tanagra types
${ }^{1}$ It may be mentioned that our experience seems to have been paralleled by that of the peasants, who in describing finds which have realized large sums of money, almost invariably refer to Red Figured vases with "gold and many colors."
${ }^{2}$ At the two sites first mentioned, Black Figured ware is rare as well.
were not uncommon, although they had suffered much from the dampness of the soil. The necropolis yielded not a single example of the typical Boeotian "Pappas," so frequent at Rhitsona, but a few fragmentary ones, together with other varieties of the more primitive types, were found on the acropolis. In general, the terra-cottas from the acropolis, although fewer in number, were of finer workmanship and more varied. Among them were a very curious, archaic, mourning figure, an inter-


Figure 7.-Acropolis; Wall of Earlier System; Southwest Corner
esting variant of the Hydrophoros type, and some excellent heads of the fully developed fifth-century style, notable among them a helmeted Athena. A fragmentary Gorgoneion was all that remained of a larger figure of the same goddess.

Of the finds from Halae it may be said, as of those from Mycalessus, that their chief importance does not lie in the value of the single objects, beautiful and interesting though some of these are, but rather in the fact that, as the graves had so often re-
mained untouched, the chronological indications they give can be relied upon.

The low hill by the sea, which was once the acropolis of Halae, forms an elongated parallelogram, whose southeast side is washed by the sea. The broken course of the fortification walls and the outlines of their towers were partially visible at the beginning of our work. A little investigation sufficed to show that the hill had been fortified at least twice: at first with a polygonal wall of hard limestone, dating from the sixth century or possibly earlier; late in the fifth, or early in the fourth century with an ashlar wall of reddish "poros" stone. Of the two walls, neither could be traced around all the four sides of the citadel; the line


Figure 8.-Terra-cotta Roof Tile from the Acropolis of Halae
of the earlier wall was plain on the north, and sporadically on the west, where it had been broken by later constructions, and a massive round tower, on the southwest corner of the hill, formed a commanding feature. Of the later wall, on the other hand, no trace was found on the north, but on the other three sides its course could be closely followed, particularly on the south, where, to judge by the excellent preservation of the outer face, it seems at an early period to have been covered to a certain depth by the soil. ${ }^{1}$ On this side, too, the wall was carefully strengthened by straps of stone connecting the outer and inner

[^153]faces. Further strengthening on this as on the other sides, was afforded by means of square and round towers.

Of entrances to the city, only one was found during the first campaign. This was a gate, 0.73 m . in width, piercing the old polygonal wall on the north side of the citadel. After having been long in use, it was closed by blocks of stone, and its place taken by some more adequate portal.

During the first campaign, two trenches were dug in the interior of the acropolis, only one of which yielded anything of note. This one was cut beside the ruined Byzantine church which marks the highest point on the hill. It revealed, in addition to some thin walls, probably belonging to buildings, part of an open square paved with pounded "poros" stone, and a well filled with a variety of objects: bits of sculpture, architectural


Figure 9.-Terra-cotta Cornice from the Acropolis of Halae
fragments in stone and terra-cotta, still bright with color; parts of large terra-cotta figures, including portions of a spirited horse, a sphinx, and a female figure, belonging to the early part of the fifth or the latter part of the sixth century; and an inscription dating from the archonship of Philo. ${ }^{1}$ The material for the pavement was found to have been obtained by crushing blocks of "poros" taken from some older building, for bits of brightly painted mouldings and triglyphs were imbedded in it. Below the classical stratum there came to light a deposit of prehistoric pottery, corresponding, except for some possibly local variations, to the earlier pottery from the prehistoric sites of Thessaly.

Owing to the fact that expropriation was in progress, but had not yet been completed, only two days' work was done on the

[^154]citadel during the second campaign. It chanced that the ground chosen for this trial trench proved to be one of the richest parts of the site. No sooner had the Byzantine level been passed than small objects, bronzes, vase fragments, terra-cottas, and silver began to appear in such quantities as to suggest the possibility of something in the nature of a "temple deposit,"-that is, a deposit formed by the discarded offerings of the faithful for which there was no longer room in the temple, and which were therefore hidden away so that future worshippers might not be discouraged.

In the third campaign work was confined to the acropolis. The line of the earlier wall was carefully traced from the north side to the point on the west side where it had been broken and overlaid by the later wall. A careful examination of the rubble filling yielded prehistoric pottery and some fragments of a pure geometric ware, of an early type, rather suggestive of island styles. This showed that the earlier wall could not be dated later than the end of the geometric period, which, in Boeotia, may have lingered longer than elsewhere. A careful examination was also made of the north gate. It showed a rather peculiar construction. Within a short distance of the gate the ground had been artificially lowered and the wall on either side of it carried down several courses deeper than elsewhere. The threshold was probably sunk in this way for purposes of defense, as the attacking party would thus be forced to approach it by a kind of enfilade. Moreover, the left side of the gate jutted out 0.607 m . beyond the face of the right side. From the gate, the way led into a street, paved with diamondshaped stones, which extended southward into the town; beside the street there were laid bare the foundations of the houses that lined it on either side. Vases of fourth century style, containing the charred remains of figs and peas, may indicate the date at which the houses were destroyed by fire.

At the west side of the citadel, near the middle, work was begun in the hope of finding the entrance to the city, which had taken the place of the discarded northern gate. This hope was not realized. The investigation of this portion of the site is not yet complete, but a few facts seem to be indisputable. Facing the town, and built directly into the west wall, there stood a long building, which, on the evidence of columns found in the vicinity, was of the Doric order, and probably is to be.
dated in the fifth century. ${ }^{1}$ It faced a square (which opened off a paved street, running into the town from east to west) at the farther end of which was situated the well found in the first campaign. The square, originally without pavement, contained, at the lower or unpaved level, the remains of a small building in a very imperfect state of preservation. It may originally have been a little shrine. ${ }^{2}$ The most interesting feature in connection with it is that the walls were once covered with painting; but, owing to the fact that the colors were applied directly to the sun-dried brick of which the walls were made, only the band of red paint on the stone socle and the masses of color in the surrounding earth gave proof of the existence of such decoration. All attempts to recover the original design were rendered vain by the fact that the clods of earth crumbled at the least touch; but the method employed was to outline in black and then fill in with different colors. The surrounding earth showed traces of red, blue, green, yellow, and black. All the objects found in the square, and in the region to the north and east of it, suggest the existence of some public building in the neighborhood. Many architectural members were unearthed, among them Doric columns and capitals, whose bulging curves told of a sixth century origin; metopes and triglyphs still bright with color; and a bit of fluting of a Doric column painted a brilliant red. Fragments of archaic statuary, corresponding to the types of the statue dedicated by Nicandra of Naxos and the figures from Branchidae, potsherds inscribed iapà and several inscriptions, including the basis of a statue dedicated to Athena, furnished more specific proof that we were in the neighborhood of a sanctuary. ${ }^{3}$ The region lying to the southeast of the church was also probed by a number of trial trenches. The underlying rock of the hill rises rapidly in this direction. Walls were found in this portion of the citadel, which indicated that it had been covered with houses, probably the dwellings of private individuals.

Everywhere, abundantly in the deeper portion of the hill, and

[^155]sparsely in the shallower, there was found evidence for the existence of a prehistoric settlement, below the classical and Byzantine strata. Some of the individual specimens of pottery were interesting. The maximum depth of the deposit is 2.50 m .

The fourth campaign was undertaken with the purpose of securing evidence which should throw additional light upon some of the problems connected with the fortification walls and buildings.' Short as it was, it furnished some surprises. At the southwest corner of the citadel, more of the line of the later wallwhich, as has been mentioned above, here overlapped and broke


Figure 10.-Acropolis; Wall of Later System; Northeast Tower
into the earlier one-was laid bare; and here there seems to have been through many centuries, building, voluntary destruction, and amplified rebuilding of the fortifications which overlooked the harbour.

At the northeast corner work begun at the end of the third campaign, for the purpose of disclosing the relation of the earlier and later walls to each other, was resumed. It was found that there had been at this point the largest and most important entrance to the citadel, a wagon road which passed between two massive towers of the later wall. The round tower to the
south was of exceptionally fine workmanship and preserved to the height of six courses, but of the square tower to the north only two courses remained, an elaborate system of baths having been built over it in later times. The street was wide and paved with stones on which the marks of chariot wheels are worn deep. No less than five superimposed pavements could be distinguished, testifying to the long-continued use of the road. It was excavated for a distance of forty metres and found to extend still farther in a westerly direction, dividing the citadel approximately into a northern and a southern half. Among smaller finds the only one worthy of mention is a small marble copy of a variant of the Cnidian type of Aphrodite, late Hellenistic in date and very similar to the copies found in the private houses of Thera and Delos. All around this main road there are walls that it has been impossible, as yet, to follow to their end, but some are certainly contemporaneous with the earlier system, while one may be of even still higher antiquity.

We have entered the citadel and found therein at least enough to show that, although Halae was a place of so little importance that the records which we have scarcely tell more than its name, its citizens still had wealth, pride, and ability sufficient to beautify and fortify it in no mean way. What future work may reveal is only a matter of hope, but of hope not entirely unjustified by the results of the past.
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## INSCRIPTIONS FROM THE ACROPOLIS OF HALAE ${ }^{1}$

The inscriptions forming the subject of this paper were found, with the exception of No. 6, which is here published for the second time, ${ }^{2}$ in the course of excavations at the site of ancient Halae carried on by Miss Walker and myself under the auspices of the American School of Classical Studies at Athens. They do not, however, represent the complete epigraphical material, as the grave stelae will be published in connection with an article on the necropolis of Halae. The yield of inscriptions, even


Figure 1.-Top of Stone in which Inscription No. 1 is cut
allowing for the fact that the acropolis has as yet been only partially excavated, was smaller than we had hoped for, especially if one considers that the fragments No. 4 and No. 5 represent
${ }^{1}$ I wish to thank Professor George H. Chase and Professor James R. Wheeler of the managing committee of the American School of Classical Studies at Athens for helpful advice and criticism. Mr. Pappadakis, Ephor of Antiquities for Boeotia and Locris, very kindly put his transcription of inscription No. 1 at my disposal.
${ }^{2}$ B.C.H. xxvi, 1902, pp. 333 ff .
the only epigraphical reward for the removal of a perfect network of Byzantine walls that everywhere covered the more ancient constructions.

No. 1. Length 0.31 m. , height 0.08 m ., thickness 0.22 m ., height of letters $0.01-0.035 \mathrm{~m}$.

The oldest inscription found on the acropolis of Halae is a private dedication in the form of two hexameter lines inscribed upon three of the vertical sides of a "poros" base. It lay inside of the west wall of the acropolis at a point where the profusion of bronze ornaments, bone implements, terra-cottas, vase fragments and broken sculpture proved that we were dealing with the débris of discarded or pillaged temple offerings. A narrow cutting on the upper surface (length 0.125 m ., width 0.05 m ., depth


Figure 2.-Inscription No. 1; Front View
0.03 m .) indicates that it may originally have supported a stele or more probably a statue of the flat archaic type, which, like the one dedicated by Nicandra of Naxos, was fitted into its base by a narrow ledge of stone projecting beneath the actual plinth. A carelessly executed shallow cutting on the bottom may date from a period of re-use. The stone is peculiarly shaped, having been framed originally at the back and the base of the three inscribed sides by a protruding rim now fully preserved only at the back (width 0.065 m. ). No less peculiar is the manner in which the verses have been placed upon it by the stone cutter, who evidently inscribed them before setting the stele and worked with more regard for his own convenience than the final appearance of the monument. Holding the stone in what was finally to be a reversed
position, he began at the lower right hand corner in large, wellspaced letters, and upon reaching the lower left hand corner turned the stone upside down and continued in the opposite direction, crowding the letters together at certain points. In consequence of this they are exceedingly irregular in size (note the variations in the single word $\phi \iota \lambda a i \sigma \iota \nu)$. But examples of similar awkwardness in the execution and placing of archaic Greek inscriptions are by no means rare, and two typical cases may be quoted in connection with our own. On a sixth century dedication from the sanctuary of Ptoian Apollo, ${ }^{1}$ inscribed on the horizontal surface of the plinth of a statue, the second line is similarly reversed instead of being written $\beta$ ovorpoф $\quad \delta o \delta \nu$. The inscription on a double altar of Athena and Hera from Crissa in Phocis ${ }^{2}$ begins at the lower right hand corner


Figure 3.-Inscription No. 1; Side View with a retrograde line and continues $\beta$ ova $\tau \rho 0 \phi \eta \delta o ́ v$ up the stone.
 $\pi \epsilon \rho \iota[\kappa] a \lambda \epsilon ́ a \cdot{ }^{\circ} \pi 0$ $[\chi] \epsilon \in \rho \sigma \iota \quad \phi \iota \lambda a i ̂ \sigma \iota \nu \quad \epsilon \delta \sigma[\kappa \in \nu$ $\tau \dot{a} \theta \dot{a}] \nu a \iota[\pi o \lambda]$ có $[o \iota]$

The loss of the final letters in the right and left hand corners of the inscription is due to the action of rain water. The channels are still plainly visible on the stone. The initial letter of the word here given as $\pi \epsilon \rho \iota \kappa \alpha \lambda \epsilon ́ a$ appears rather as an $\boxminus$ on the photograph taken from the squeeze, but a careful examination of the stone suggested, although the indications were not sufficient for absolute certainty, that only the left upright hasta and the upper part of the right one had the clean cut, firm character of an intentional incision. What is left of the $\rho$ is not sufficient to exclude the possibility of a different restoration. The $\pi$ following $\pi \epsilon \rho \kappa \kappa а \lambda^{\prime} \dot{\epsilon} a$ is clearer on the stone than on the photograph and the same is true of the letters $\omega 0$ of $[\pi o \lambda]$ ó $[o c]$ which, although shallow and crowded together, are quite certain. The final letters oc seem to have turned the corner in a manner similar to the first alpha of $\pi \epsilon \rho \iota к а \lambda_{\epsilon}$ a. The restorations, with the

[^157]exception of the words following ad $\nu^{\prime} \theta \epsilon \epsilon \epsilon$ and $\pi \epsilon \rho \iota к a \lambda^{\prime} \in$, are, I believe, fairly certain, determined as they are in part by the exigencies of space and metre. For the first of these кópov is the more probable, if we think of the dedication as commemorating a victory in some local Athenaic festival; but $\theta$ tóv would be preferable if the base supported a statue of the goddess herself.

The word following $\pi \epsilon \rho \iota к а \lambda^{\prime} \neq a$ offers some difficulties. There is room for two or at most three crowded letters between o and $\nu$. $\pi o \iota o ̂ \nu$ ( $\pi o \iota \omega \nu$ ) would fit admirably as far as the sense is concerned, but the form is unsatisfactory. One would expect $\pi o \iota \eta \dot{\sigma} \alpha{ }^{1}{ }^{1}$ Accepting the restoration кópò one might read кópò $\pi \epsilon \rho \iota \kappa \lambda \bar{\epsilon}$ ', "A $\pi o \lambda o \nu,{ }^{2}$ but the very probable occurrence of the name of Athena in the second verse, taken in conjunction with the fact that the excavations yielded no evidence for the worship


Figure 4.-Inscription No. 1; from a Squeeze
of Apollo, makes the invocation to that deity doubtful, although by no means impossible. We should then have a case similar to that of an inscription from the Acropolis at Athens, which apparently commemorates the raising of a statue of Athena as a thank-offering to Poseidon. ${ }^{3}$
${ }^{1}$ The inscription of the sixth century from Melos, Loewy, Inschriften Griechischer Bildhauer No. 5, gives some support to such a restoration:


${ }^{2}$ Cf. Dittenberger, Sylloge Inscr. ${ }^{2}$ No. 588141.


${ }^{8}$ Hoffman, Sylloge Epigr. Graec. No. 256.


Hoffman comments: "statua non Minervae sed Neptuno dedicata fuisse videtur."
${ }^{*} \delta \delta[\kappa \epsilon \nu]$ : The movable $\nu$ is necessary in order to make position. [ $\tau \dot{a} \theta \dot{a} \dot{a}] \nu a \iota[\pi o \lambda]$ óo $[o c]$ : In spite of the unpleasant effect of the diaeresis at the end of the third foot, this restoration is made practically certain by the letters preserved on the stone, ${ }^{1}$ and is further supported by the fact that inscription No. 2 found near it, also contains a dedication to Athena with the formula $\dot{a} \nu \dot{\nu} \theta \in a \nu \tau \dot{a} \theta \dot{a} \nu a l$. Furthermore the preponderance of feminine ornaments among the bronzes of the temple deposit suggests the shrine of a goddess rather than of a male divinity. The space on the stone does not allow of the more regular metrical ending
 likely to occur in this region at so early a date.


Figure 5.-Inscription No. 2
Date.-The inscriptions of Locris are too few in number to offer a satisfactory basis for comparison, but a careful study of the early inscriptions of Boeotia seems to justify our placing the dedication well within but not earlier than the second half of the sixth century. The four barred sigma and the theta crossed at right angles, which offer perhaps the best criteria for judging, appear very early in Boeotia.

No. 2 is a rectangular base of hard limestone (length 0.70 m ., height 0.36 m. , thickness 0.875 , height of letters $0.02-0.035 \mathrm{~m}$.), perfectly preserved èxcept for a small break at the bottom. The
${ }^{1}$ Allen 'On Greek Versification in Inscriptions,' in Papers of the American School of Classical Studies at Athens, IV, p. 125 gives two other examples of crasis of rầ 'A日ápal, one in an inscription from Attica (VI-V century) and the other from Posidonia (VI century).
top has a shallow oblong cutting for the insertion of the plinth of a stone statue．It was found just inside of the west wall of the acropolis and，although not in situ，could not，on account of its great weight and excellent preservation，have been moved very far from its original position．

$$
\begin{aligned}
& \text { Kai Фба⿱亠乂ô àpxóvtov }
\end{aligned}
$$

$$
\begin{aligned}
& \text { इధóta } \begin{array}{c}
\text { ध́ } \sigma \tau а \sigma \epsilon ~
\end{array}
\end{aligned}
$$

The inscription records the dedication of a statue to Athena by the people of Halae，and its main importance in connection with the excavations as a whole lies in the fact that it gives us the first definite proof of the correct identification of the site and the


Figure 6．－Inscription No．2；from a Squeeze
name of what was in all probability the chief divinity worshipped on the acropolis．

The use of the names of three archons instead of a single eponymous one for the dating of a public inscription is somewhat unusual，although we have several archons recorded in the text of inscriptions from other cities of Northern Greece．An inscrip－ tion from Physkos in Ozolian Locris，for example，is dated by the name of a single archon and the month of the year，but two additional archons are mentioned in the body of the inscription．${ }^{1}$ An inscription of the second century from Narthakion，in which the eponymous $\sigma \tau \rho a \tau \eta \gamma$ of of Thessaly is first mentioned and then the three local archons，offers the closest parallel．${ }^{2}$

[^158]L. 2. The name $\Psi a \nu$ ós occurs here for the first time and may originally have been a nickname from $\psi a v o ́ s ~ o r ~ \psi \eta v o ́ s ~ " B a l d ~$ head." ${ }^{1}$
L. 4. In इ¢óma we have another of the masculine names in $\bar{a}$ of frequent occurrence in Northwest Greek. ${ }^{2}$
L. 4. Although there is no exact parallel for the use of $\epsilon \sigma \tau a \sigma \epsilon$ as implying a definite function, it seems probable that $\Sigma \rho_{0} \pi \alpha \alpha$ either himself provided the money for the monument voted by the people or saw to the disbursement of the city funds and the erection of the statue, acting in some such capacity as that of the $a ̈ \rho \chi \omega \nu \dot{\epsilon} \pi i \quad \tau o ̀ \quad a ̈ \gamma a \lambda \mu \alpha$ mentioned in a dedication of the Thespians at the shrine of Ptoian Apollo. ${ }^{3}$ In an inscription from Orchomenos, dated by Dittenberger around 250 b.c. ${ }^{4}$ mention is made
 In Athens a special board was frequently appointed to attend to the erection of statues, and their duties were clearly defined, as in the following inscription of the year 286-285 в.с.: ${ }^{5} \quad \sigma \tau \hat{\eta}[\sigma \alpha \iota \delta] \epsilon$



Date.-In this inscription we must again rely upon the forms of the letters for dating. It probably falls within the first quarter of the fifth century.

No. 3. Length, 0.32 m. ; height, left, 0.42 , right, 0.38 m. ; thickness, 0.09 m ; height of letters, $0.01-0.017 \mathrm{~m}$.

No. 3 is inscribed on a block of the soft reddish-yellow "poros" of which the second system of fortification walls is made. It was found broken in three pieces at the bottom of a well which contained in addition many painted architectural blocks and fragments of terra-cotta statuary. The stone is incomplete only

[^159]${ }^{3}$ I.G. VII, 4155:
$\theta \epsilon \sigma \pi t \epsilon i \in \epsilon$ à $\nu^{\prime} \theta_{\epsilon} \epsilon[a \nu]$
' $А \pi$ о́ $\lambda \lambda \omega \nu \iota$ П $\tau \omega \iota \iota \iota$

 $\Xi_{\epsilon} \in \nu \dot{\phi} i \lambda \omega$ Ө $\epsilon \mu \nu \alpha \sigma \tau[i \omega]$

${ }^{4}$ I.G. VII, 3192.
${ }^{5}$ I.G. II, 312 l. 57 ff.
at the bottom, except for abrasions around the outer edge and slight lacunae at the jointing of the three parts. The mending was unfortunately done with a heavy black cement, so that the


Figure 7.-Inscription No. 3; From a Squeeze
pieces are not quite so accurately set as their state of preservation would have permitted. Owing to the uneven wearing away of the inscribed surface, the letters are now of greatly varying
thickness and it has become impossible to decipher all of line thirteen.

$$
\begin{aligned}
& \iota \omega \tau \omega ิ \nu \text { émi } \pi o ́ \lambda \iota o s ~ \delta \grave{~ M ı к к i \nu a, ~}
\end{aligned}
$$

$$
\begin{aligned}
& 5 \text { os, K } \lambda \epsilon \mu \text { á } \chi \text { оv M } \nu \text { абіта, } \gamma \rho а \mu \text { - } \\
& \text { натísovtos Mıкрiva Dıoów- } \\
& \rho o v, \pi \rho o \tau \alpha \nu[\epsilon] v o ́ v \tau \omega \nu \text { ' } \mathrm{E} \pi \iota \kappa \rho \dot{\alpha}- \\
& \tau \epsilon \circ \mathrm{S}, \boldsymbol{\Xi} \epsilon[\nu 0] \kappa \rho a ́ \tau \epsilon o s, \mathrm{M} \epsilon \nu \epsilon \kappa- \\
& \text { рá } \tau \epsilon o s, \text { Tí } \mu \omega \nu o s, 0 \phi \epsilon \lambda a ́ v \delta \rho- \\
& 10 \text { ov, К } \lambda_{\epsilon о \mu} \epsilon \dot{\epsilon} \eta \mathrm{\eta} \text {, хора- } \\
& \text { रıóvт } \omega \nu \text { к } \omega \mu \omega \delta o i ̂ s ~ М ı к к і \omega \nu-~ \\
& \text { os, Tí } \mu \omega \nu 0 \text {, } \pi \epsilon \tau а \mu \nu \nu \phi a ́ \nu \tau \epsilon t-
\end{aligned}
$$

a, $\pi \epsilon \nu \tau$ á $\mu \epsilon \rho o \iota$ Eúdauíoas
15 'A $\gamma \eta \sigma i \pi \sigma \lambda \iota s, \mathrm{M} \epsilon \nu \epsilon \kappa \rho \dot{a} \tau \eta \mathrm{~s}$,
Пaıסivas, тоá $\rho \hat{\imath} \iota$ ' $\mathrm{E} \pi a ́ \rho \mu о-$
бтos, Xapivootos, Niкш, $\mathrm{K} \alpha-$
$\lambda \lambda \iota \kappa \rho \dot{\alpha} \tau \eta s, \lambda a \nu \pi \alpha \dot{\delta} \sigma a \rho \chi 0 \iota$ K $\lambda$ -
$\Xi \epsilon \nu a i \nu \epsilon[\tau o s]$.

The inscription, which contains a list of officials, is important in that it gives us the first epigraphical mention of Halae as a member of the Boeotian league.
L. 1. áp $\rho \chi \nu \tau \sigma$ s $\Phi i \lambda \omega \nu$ os $\tau \hat{\iota} \iota$ кoı $\nu \hat{\imath} \iota$ Bot $\omega \tau \hat{\omega} \nu$ : This is a variant of the formula usually expressed by ä $\rho \chi$ оvтos ${ }^{\epsilon} \nu(\tau \hat{\varphi}) \kappa о \iota \nu \hat{\varphi}$ Boı $\omega \tau \hat{\omega} \nu$,
 archon $\Phi i \lambda \omega \nu$ is mentioned in two inscriptions of the neighboring Hyettos ${ }^{1}$ and in four from Oropos, ${ }^{2}$ while the name can be correctly restored from that of the eponymous priest of Amphiaraos in a fifth from Oropos. ${ }^{3}$ That there were either two archons by the name of $\Phi i \lambda \omega \nu$ or preferably two years of the same archon ${ }^{4}$ is proved both by the Hyettos inscriptions, where the

[^160]name appears in combination with different local officials, and by those of Oropos, three of which give the eponymous priest Nikippos ${ }^{1}$ and two the priest Theodoros. ${ }^{2}$

Larfeld ${ }^{3}$ dated the inscriptions from Hyettos as falling between the years $223-197$ в.c., doubtless on the basis of epigraphical evidence, but that varies so greatly even within the same inscription that it could never have had very much value and is now superseded by the ingenious combination of historical evidence given by Dittenberger in full in connection with I.G. VII, 237. Briefly stated, it is as follows: Inscription I.G. VII, 271, records the erection by the son of the priest Diodoros of a statue to his father, who in No. 236 is mentioned as priest of Amphiaraos when Charidamos was archon of the Boeotian league; therefore all inscriptions appearing on the same base with 271 must be later than the year of the archon Charidamos. Among these are two of the archon Dionysios who, on the basis of I. G. VII, 298, is dated after 270 в.с. and before 246 в.c. ${ }^{4}$ But between Charidamos and Dionysios the following archons must be placed: ${ }^{5}$
 Прштómaхos, $\Phi \iota \lambda \dot{\xi} \xi \in \cos$. If we take for granted that No. 298 falls in the latter years of Ptolemy's reign around 250 в.c., we get an approximate date for Philo between 260 and 250 b.c., and a comparison of the letters in the various Philo inscriptions makes the latest possible date preferable.
 league from cities that were originally Boeotian usually have the
 from Chaeronea of the second century в.c. ${ }^{6}$
L. 7. This is the only inscription of the Boeotian league in which the members of the Prytany are mentioned. The form

${ }^{1}$ I.G. VII, 255, 273, 278.
${ }^{2}$ Ibid. 300, 247.
${ }^{8}$ Larfeld, Sylloge Inscr. Boeoticarum, XXXV.
${ }^{4}$ I.G. VII, 298, is inscribed upon the pedestal of a statue erected in honor of Arsinoe, the sister of Ptolemy Philadelphos, to whom she was married prob-


${ }^{5}$ A review of all the evidence would lead too far afield, and as it is based primarily on the relative positions of the inscriptions on the pedestals of statues it can be studied to advantage only in connection with the Corpus, I.G. VII.
${ }^{6}$ I.G. VII, 3294.
first time outside of inscriptions in the Lesbian dialect and eight Attic non-official decrees of the years 329-285 b.c. ${ }^{1}$
L. 10. It is undoubtedly due to an error of the stone cutter that the name $K \lambda \epsilon о \mu \epsilon \in \nu \eta$ appears in the nominative. As there is no analogy for a board of Prytanes, even in a small city, consisting of only three members, it is better to suppose that the patronymics are here omitted, as they are in the remaining part of the inscription, and that there were six members. ${ }^{2}$
L. 12. In the $\pi \epsilon \tau a \mu \nu v \phi \dot{a} \tau \epsilon \iota \rho a \iota$, who are mentioned here for the first time, we have evidently women acting in an official capacity, as $\pi \epsilon \tau \dot{d} \sigma \mu a \tau o s ~ \dot{v} \phi \dot{\alpha} \nu \tau \epsilon \iota \rho a l$, weavers of the spreading cloth. May there not have been a garment woven for the Athena of Halae such as the women of Athens made for their goddess and those of Elis for Hera at Olympia?
L. 13. There are signs of some confusion in this line. An iota can still be read under the theta of $K a \lambda \lambda \iota \theta^{\prime} a$ and the last three letters are crowded together. The last of the three feminine names is partially obliterated.
L. 14. In $\pi \epsilon \nu \tau \dot{\alpha} \mu \epsilon \rho \circ \iota$ we may have the first mention of officers appointed for a period of five days, whose activities, unfortunately no further defined, appear in the participle $\pi \epsilon \nu \tau a \mu a \rho \iota \tau \epsilon \dot{v} \omega \nu$ in the inscription of the Labyadae found at Delphi. ${ }^{3}$ The form $\pi \epsilon \nu \tau$ á $\mu \epsilon \rho o \iota$ would, of course, be a variant of the form $\pi \epsilon \nu \tau a \mu a \rho i \tau a s$ implied in $\pi \epsilon \nu \tau a \mu a \rho \iota \tau \epsilon \dot{\jmath} \omega \nu$. A committee appointed for a period of thirty days $\tau \grave{̀} \tau \rho \iota a к о \nu \tau \alpha \mu \epsilon \rho о s$, whose members must have been known as the тоıакоутанєрítal, is mentioned in an inscription of the first century b.c. from Phintias. ${ }^{4}$
L. 16. roá ốc must, I think, be taken as an abbreviation of the formula ä $\rho \chi o \nu \tau \epsilon s \tau \hat{\varphi}$ ia $\rho \hat{\omega}$ as it appears in inscriptions of about the same period from Orchomenos. ${ }^{5}$ The office may also

[^161]be expressed by a single word，as in I．G．VII，3204，ia $\rho a \rho \chi$ ıóvt $\omega \nu$ $\Sigma \omega \kappa \rho \dot{\alpha}[\tau \iota o s]$ Kaфıбoó $\dot{\rho} \omega \omega$ ，etc．The form toápồ is peculiar，but in view of the fondness for contraction shown in all these inscrip－ tions，must，I believe，be accepted as intentional and cannot be attributed to an error on the part of the stone cutter．
 inscriptions either under this name or as rumpariapxol，and an inscription from Delos is perhaps worth quoting in this connection as it gives an interesting description of their official duties ${ }^{1}$ ：



 $\mu \eta[\nu]$ ós．

L．19．тámo入óyoı：Here again the participle governing támo入óro seems to have been omitted as in the formula $\tau \dot{\delta} a \rho o ̂$ ı． The use of the word ámódoyos as the equivalent of $\dot{a} \pi o \lambda o \gamma \iota \sigma \mu \dot{s}$ is mentioned by Hesychius．In an inscription from Thera of the end of the third or beginning of the second century，that is only slightly later than the inscription under discussion，it appears used in the same way．${ }^{2}$ The more common use of ámo入óros is in the sense of $\lambda o \gamma \iota \sigma \tau \dot{\eta} s$ and the ámo入óyo appear as judges in a case of collecting fines，in an inscription from Thasos now lost．${ }^{3}$ A very interesting ámo入oria is given in an inscription from Le－ badeia．${ }^{4}$ Inscriptions found in the recent excavations at Thasos are said to mention the ámo入óyoc，${ }^{5}$ and they are also recorded in an inscription from Acragas of about 210 в．c．${ }^{6}$

Of the names mentioned in the inscription only a few are new， and I shall comment only upon the more unusual ones．

L．2．Mıккivas，written variously with or without the double

[^162]$\kappa$, appears in Thessalian, Phocian, Corcyrean and Boeotian inscriptions. ${ }^{1}$
L.4. Bitras: The form Bitros appears three times in inscriptions from Delphi ${ }^{2}$ and in one of these as a Locrian name. ${ }^{3}$ The feminine forms Bi $i a^{4}$ and $B \iota \tau \omega^{5}$ are known from Thrace and Cos respectively. Bit $\omega \nu$, by far the most common masculine form, was frequent in Argos and Arcadia.
L. 4. The name Фutó $\lambda \lambda \omega \nu$ appears nowhere else to my knowledge, although it may be the correct restoration for I.G. $\mathrm{XII}_{2}$, 3293.
L. 5. K $\lambda$ '́ $\mu a \chi o s: ~ A ~ M e g a r i a n ~ a r c h o n ~ o f ~ t h a t ~ n a m e ~ i s ~ m e n-~$ tioned in the form K $\lambda$ cipaरos in the inscription I.G. VII, 27, 1. 51. ${ }^{6}$
L. 9. 'O $\phi^{\prime} \lambda \alpha \nu \delta \rho o s$ is mentioned twice in Boeotian inscriptions. ${ }^{7}$


Figure 8.-Inscription No. 4; from a Squeeze
L. 11. M $\kappa \kappa i \omega \nu$ : Lucian records a pupil of Zeuxis of that
${ }^{1}$ I.G. $\mathrm{IX}_{2}, 234$.
S.G.D.I. II, 2172, 1. 5. I.G. VII, 2989.
${ }^{2}$ S.G.D.I. 2520, 1. 12, 2522.



${ }^{4}$ Boeckh, 2014.
${ }^{6}$ Cos, Inscr. 2236.
${ }^{6}$ I.G. VII, 27: For the form K $\lambda$ f ${ }^{\prime}$ axos cf. Buck, Greek Dialects, p. 20 a: "Boeotian e generally had a rclatively close sound and the spelling ei occurs occasionally even before a consonant." An inscription from Delphi (400350 в.c.) also gives the form $K \lambda \epsilon$ f $\mu$ axos.
${ }^{7}$ Coronea, I.G. 2872; Thisbe, I.G. 2314.
name, ${ }^{1}$ and it appears twice in inscriptions from Arcadia ${ }^{2}$ and in a manumission decree from Hypata. ${ }^{3}$
L.13. Xapeviкa: The masculine form Xapivcos is found in an inscription from Sparta. ${ }^{4}$

No. 4. The fragment of the upper part of an inscription recorded on the same soft yellow stone as No. 3 was found in a Byzantine wall. Height 0.255 m. , width 0.38 m ., thickness 0.125 m ., average height of letters 0.015 m . The inscription is surmounted by an ornamental gable, the apex of which is broken


Figure 9.-Inscription No. 5; from a Squeeze
off. It is also broken at the bottom and right side. Only the introductory formula can be restored:

> [äpर]ovтos $\tau 0 ิ \iota$ коเขôı Boı $\omega \tau \omega ิ \nu$
> [Nit]кต
> [ $\dot{\epsilon} \pi i$ i $\pi o ́ \lambda \iota o s ~ \delta e ́] ~ K \lambda \epsilon v o \mu a ́ ~[\chi] o v ~$ [ $\pi 0 \lambda \epsilon \mu a \rho \chi] \epsilon \dot{\rho} \nu \tau \omega \nu$

$$
\begin{aligned}
& {[\gamma \rho a \mu \mu a \tau i \zeta \rho \nu] \text { тos . . } \nu(\epsilon \vartheta) \mu a .}
\end{aligned}
$$

${ }^{1}$ Lucian, Zeuxis VII, 2.
${ }^{2}$ I.G. $\mathrm{V}_{2}, 36,101$; I.G. $\mathrm{V}_{2}, 35$.
${ }^{3}$ B.C.H. 1902, p. 392.
${ }^{4}$ I.G. XIII ${ }_{3}, 306$.
L. 2. Nikcyos: The Boeotian archon Nik $\omega$ is mentioned in an inscription from Oropus dating from about the middle of the third century b.c. ${ }^{1}$

No. 5. Fragment of the lower part of an inscription recorded on a hard bluish limestone. Height 0.21 m ., width 0.195 m ., thickness $0.108-0.11 \mathrm{~m}$., average height of letters 0.007 m . It was found in a Byzantine wall and is broken on all sides although only very slightly at the right side and at the bottom, where the inscription is still intact. Only a few names with their patronymics are preserved:


Figure 10.-Inscription No. 6; from a Squeeze

```
\(\iota \nu \epsilon\)
\(\mu \omega \nu 0\)
\(\omega \nu 0 s \Delta a\)
Nıкó \(\boldsymbol{a \chi o}\) [s or v] ov Niк \(\omega \nu \mathrm{T} \epsilon \boldsymbol{\lambda} \epsilon\)
[ \(\left.\mu a ́ \chi o v \imath . . . . . . . . . \Phi_{\iota}\right] \lambda o ́ \xi \in \nu o s K a ́ \lambda \lambda \omega\)
```

No. 6 is inscribed on a block of bluish limestone which has been further broken since it was first published by Jardé and Laurent. ${ }^{2}$ Height 0.275 m ., length 0.55 m ., thickness 0.55 m ., height of

[^163]$\omega \nu \alpha$
$\alpha \rho \epsilon \tau \eta s$
$\sigma \eta \sigma \epsilon \chi \omega \nu \delta \iota \epsilon$
letters 0.027 m . The stone is broken on both the left and right side and at the bottom. Two cuttings for hook clamps appear at the top of the left side showing that the stone formed part of a succession of blocks and supported some large statue or group. As there are, however, no dowel holes or cuttings for the insertion of the statue on the top surface of the inscribed block, it may have been surmounted by an equestrian figure, in which case the legs of the horse would have been fastened to the right and left of our stone. To judge by the character of the letters the statue or group was erected in honor of some benefactor of the town late in the fourth or early in the third century. The inscription from Priene, ${ }^{1}$ erected in honor of Lysimachus in 286 в.c., bears a striking resemblance to ours and we may also gather from it some idea of the elaborate nature of these honorary statues. The formula probably read somewhat as follows:


$\theta \quad \epsilon \quad 0 \quad \iota$
Hetty Goldman.
New York.
${ }^{1}$ Priene, No. 14:
Baбı入єî $\Lambda v \sigma \iota \mu a ́ \chi \omega \iota$
...... $\sigma \tau \dot{\eta} \sigma \epsilon t \delta \hat{\epsilon}[\hat{d}] \delta \delta \hat{\eta} \mu[s]$



# ARCHAEOLOGICAL DISCUSSIONS ${ }^{1}$ 

# SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS 

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## GENERAL AND MISCELLANEOUS

The Protohistoric Ages in Barbarian Europe.-In R. Arch., fifth series, I, 1915, pp. 47-70 (map), Leon Joulin continues his treatise on the protohistoric ages in barbarian Europe (ibid., fourth series, XXIV, 1914, pp. 59-98, A.J.A. XVIII, 1914, p. 499) with a discussion of the fourth. and third centuries b.c. A summary is given of the migrations, political changes, and archaeological evidence relating to Scythia, Italy, the countries north and east of the Alps, Gaul, and the Hispanic peninsula. Ibid. pp. 259-282, the second and first centuries b.c. are treated in a similar manner. The treatise closes with a statement of general conclusions.

Art and Reality.-In $R$. Arch. XXIV, 1914, pp. 231-265, W. Deonna discusses the relations of art and reality, enumerating some of the material and spiritual factors which make up a work of art and showing how various are the reasons for the differences which exist between works of art and the realities represented by them.

The Rectangular in Art.-In 'A $\boldsymbol{\lambda} \chi$. 'E $\phi .1914$, pp. 25-49 (33 figs.), F. Versakes discusses the origin, development, and influence of the working in parallel and perpendicular planes which characterized the early stages of Greek sculpture, and from which Lacedaemonian sculpture never entirely freed itself. Most attempts to explain the flatness and angularity of the early work do the artists an injustice, interpreting their inability to execute as an inability to see and comprehend form. Neither Brunn's theory, which explains these characteristics as derived from the shape of the plank, beam, or $\log$ used by wood-carvers, nor that of Hildebrand and of Loewy, which derives them from a flat, geometric conception of objects seen from a distance, hits the mark. The explanation is to be found rather in the transfer to stone of the artistic

[^164]For an explanation of the abbreviations, see pp. 118-119.
traditions, the technique, and especially the tools of the carver of wood and bone. This theory is supported by a study of the bone and poros sculptures of the sanctuary of Artemis Ortheia at Sparta (cf. B.S.A. 1905-6, pp. 320 ff ., and 1906-7, pp. 60 ff .) and of the newly discovered archaic sculptures of Corcyra (cf. Versakes, Практıќ 1911, pp. 164 ff.). Since this technique persists in Doric work long after Ionic and Attic imitations have progressed beyond it, it is doubtless a Doric invention, originating at Corinth, where carving in wood and bone reached its climax in the production of the Chest of Cypselus.

Methods in Archaeology.-In L' Homme préhistorique, II, 1914, pp. 167-183, $213-220$, W. Deonna points out that caution must be observed in drawing inferences in regard to prehistoric antiquities. The finer finish of a bronze axe does not necessarily mean a later date; nor do resemblances in technique or in shape of primitive vases necessarily prove connection. Such inferences are only justifiable when supported by other evidence. This is a principle which holds true in the whole field of prehistoric archaeology.

The Horses of Death and the Under World.-In an article of seventy-seven pages with forty illustrations (Jb. Arch. I. XXIX, 1914, pp. 179 ff .), L. Malten has collected and analyzed the ancient beliefs and superstitions which connect the horse and other animáls with the idea of death, and inquires into their origin and development. Behind and co-existent with the association of horses with chthonic and other anthropomorphic divinities, as in the chariots of Poseidon, Hades and Helios, is a theriomorphic stage in which these powers are embodied in the animals themselves. In the sophisticated atmosphere of the epic, such ideas survived only as figures of speech, but the primitive beliefs are occasionally revealed in tragedy and in later writers, and are abundantly illustrated in the superstitions of northern and central Europe. So, too, in the arts of design, while the horse, like many other objects associated with religion, became a mere attribute and symbol traditionally used, its original significance is illustrated in the human-headed beasts and beast-headed human forms of Medusa, the sirens, sphinxes, harpies, etc. The double aspect of the horse or other demonic form as representing either the power that brings death or the dead themselves, sometimes both at once, goes back to a time when death was thought of as a summons to follow a superhuman being, to join his band, and take on his form. So Hecuba, dead, becomes a dog attending the dog-demon Hecate. Not only the gods, but many of the human and half-human heroes of Greek mythology, with their wonderful horses, as Adrastus (unescapable) Admetus (untamable), Neleus (pitiless), Laomedon (ruler of the people of the dead), Erechtheus-Erichthonius (lord of the earth beneath), and the nonGreek Bellerophon, were originally chthonic divinities and agents of death. To the Arcadians and to the inland ancestors of the Greeks, Poseidon was a fresh-water divinity, dwelling in the ground, shaking the earth, calling forth springs, making the land fruitfui. Only with later oversea migrations did he become a sea-god and drive his horses over the waves. That the horse especially was chosen for identification with these superhuman powers was, perhaps, due as much to his highly nervous temperament, the uncanny sounds that he utters, and his extra-human powers of perception (probably through hearing) as to his trampling hoofs, his swiftness, and his service as a steed. In like manner the vivid imagination of primitive folk felt a demonic character
in the dog (Hecate, Cerberus, etc.), in snakes, and in certain birds. As the horse itself was introduced comparatively late into Egypt and Mesopotamia, it plays but a small part in the religion of those lands and of Crete.

Animal-shaped Vases and the Drink of Immortality.-In Mitt. Anth. Ges. XLIV, 1914, pp. 17-43 (39 figs.), K. v. Spiess argues that the prehistoric vases in the shape of animals, the horned birds of bronze, the bronze figures on wheels from Southern Italy, the hanging dove of early Christian times, the birds on Christian monuments, the vessels in the shape of birds, fishshaped vessels, etc., have to do with the belief in a magic drink which bestows the gift of immortality.

The Breasts of the Ephesian Artemis.-In Röm. Mitt. XXIX, 1914, pp. 200-219, M. Meurer argues that the breasts of the Ephesian Artemis were not meant to be parts of the body of the goddess, but represented merely an external ornament derived from a row, or rows, of pendants attached to a crescent-shaped shield. These were naturalized somewhat in later (especially in Roman) times in order to symbolize the character of the goddess. In them and in other adornments of the Ephesian Artemis Egyptian, Carian, and Greek motifs are combined.

The Ancient Plough.-The various forms of the ancient, one-handled plough and the meanings of the words used to designate its parts are discussed by A. S. F. Gow (J. H. S. XXXIV, 1914, pp. 249-275; 4 pls.; 14 figs.). The monumental and literary evidence (the latter centering about Hesiod and Virgil) is given in full. The three essential parts are the stock or beam which cuts the earth, the tail by which the ploughman guides the implement, and the pole by which the draught animals draw it. It is conceivable that all three could be combined in their proper relations in a single piece of wood as it grew, and two of them apparently sometimes were so grown. In the more developed forms each of these elements was itself made up of more than one piece or part, and there was even a Gallic (Rhaetian) form with wheels supporting the pole. In Greek ploughs the stock seems to have been always horizontal; in Italy it sometimes slanted downward or was nearly vertical. In these same lands the one-handled plough is still in common use.

Palaeolithic Masks.-In R. Arch. XXIV, 1914, pp. 300-301, H. Breull maintains (against Waldemar Deonna, 'Les masques quaternaires,' L'Anthropologie, 1914, p. 107) that in a considerable number of cases the animal heads of human figures in palaeolithic art must be explained as masks. The bison with human head does not exist in palaeolithic art; in Babylonian art it is not a primitive development. Ibid., fifth series, I, 1915, pp. 172-176, W. Deonna replies, maintaining that, although such masks may have existed, the monuments do not as yet prove their existence.

Thracian Archaeology.-In $R$. Arch., fifth series, I, 1915, pp. 71-93 (2 figs.), Georges Seure continues his reports on Thracian archaeology (see R. Arch. XXIV, 1914, pp 54-66, A.J.A. XIX, 1915, p. 180) with discussion of inscriptions. No. 129 is a Latin dedication by a veteranus, on an altar from Riben, No. 130 a Greek dedication to Lord Apollo on a pillar from Skolochtitza, No. 131 a Latin dedication Sancto A pollini, on a stele from Mikhiltzi, near Pavlikeni, in the district of Tirnovo. Apollo is identified with the Thracian Horseman. A temple of Apollo probably existed in Roman times near Mikhiltzi, at a place called Dikili Tach. Remains of two pillars, various columns,
ruined walls, and fragmentary sculptures at this place are described, on the basis of earlier descriptions. They seem to be among the most important Roman remains in Bulgaria. The discussion of these ruins figures as No. 132. No. 133 is a Latin dedication on a bronze base for the support of a statuette. It comes from Karlovo.
Early Sculptures in China.-In C. R. Acad. Insc. 1914, pp. 670-682, H. Cordier gives an account of the early sculptures examined by him in China in recent years. The oldest piece is a stone horse in front of a general's tomb dating from 117 в.c. Other early pieces date from the first century A.d. An interesting group is that of Wou Leang t'seu, in the western part of the province of Chan Toung, dating from the early centuries of the Christian era. These sculptures have been studied by Chinese archaeologists since the eleventh century. The scenes have to do with the legendary history of China, with the emperors Fou Hi and Niu Kua, whose bodies ended in serpents, the visit of Confucius to Lao Tse, etc. A tomb chamber at Hiao t'ang chan, 25 km . northwest of Fei-tch'eng, has scenes representing a royal procession, the god of thunder, domestic scenes, etc. These date from the Han period. These sculptures are to be connected with the art of Gandhara, which flourished from the second century to about 600 A.D. Other interesting examples of early Chinese art are the Buddhistic sculptures of Yun Kang dating from the fifth century; and the horses adorning the tomb of the emperor T'ai Tsoung (627-649 A.D.) at Li-ts'iuan hien.
Arabic Numerals.-The paper by G. F. Hill published in Archaeologia, Vol. LXII, has been enlarged and improved and now appears as a book. The chronological and local distribution of the forms of Arabic numerals after they were established in the West is made clear by a large collection of grouped facsimiles. The attempt is made to include everything earlier than 1500, but after that date the examples are selected. Nothing later than the sixteenth century is included. The classification is by country, kind of monument (e.g., manuscripts, seals, monumental), and date. The introduction contains an explanation of the system adopted, statements concerning sources, various explanatory remarks, and an annotated list of some erroneous or doubtful dates. [The Development of Arabic Numerals in Europe exhibited in sixty-four Tables. By G. F. Hill. Oxford, 1915, Clarendon Press. 125 pp.; 8 figs. 8 vo . 7s. 6d. net.]
The Burial of Alaric.-In $R$. Arch., fifth series, I, 1915, pp.13-19, S. Reinach discusses the tale told by Jordanes (De rebus gothicis, X) that Alaric was buried in the bed of the Busento river which was temporarily turned aside by the Goths for the purpose. He finds that the tale has no basis in fact.

## EGYPT

Egyptian Royal Accessions during the Old Kingdom.-In S. Bibl. Arch. XXXVI, 1914, pp. 282-288; XXXVII, 1915, pp. 34-41, F. W. Read seeks to establish that there are no dates indicated on the Palermo Stone; what have been regarded as such are in all cases statements of periods of time, from which; of course, dates can be ca'culated. The year-spaces on the stone denote regnal years assimilated to civil years; that is to say, every space is equivalent to a civil year except at a change of reign. On such an occasion, the first set of
figures in each pair denotes the portion of the civil year during which the predecessor ruled, and the second set the portion of the year during which the successor ruled; the sum of these two deducted from the full year gives the length of the interregnum. When a co-regent died leaving a surviving coregent, the year in which the death occurred was denoted by one year-space, which was divided to indicate the end of the reign of the deceased co-regent, and in the first portion of which was inserted the length of time in that year reigned by the latter.

New Fragments of the Palermo Stone.-In C. R. Acad. Insc. 1914, pp. 489496 (pl.), H. Gauthier calls attention to four new fragments of the historical inscription known as the "Palermo Stone" acquired by the Cairo museum in 1910. The position of the first of these, which is about the same size as the fragment in Palermo, can be determined with certainty. On one side it has the record of the fourth and part of the third year of Ousirkaf of the fifth dynasty, and the third and part of the second year of his successor, Sahoure. On the other side of the stone is a list of the kings of Upper Egypt.

A Will from the Old Empire.-In C. R. Acad. Insc. 1914, pp. 538-546, A. Moret publishes a will from a mastaba at Gizeh dating from the Old Empire which throws light on the rights of the eldest son and on the conditions of property at that time.

The Nomes of Upper Egypt in the Eighth Dynasty.-In C. R. Acad. Insc. 1914, pp. 565-574 (3 figs.), A. Moret publishes a list of the nomes of Upper Egypt in the eighth dynasty. The stele on which it is engraved was found by Reinach and Weill at Coptos in 1911.

The Historical Scarab of King Shabako.-In Or. Lit. XVIII, 1915, cols. 43-45, A. Alr criticizes the report on the scarab of Shabako published by W. M. Müller, ibid. XVII, 1914, cols. 49-52, and claims that this scarab has already been published by Maspero and that it is of doubtful genuineness.

The Names Didas and Dizazelmis.-In R. Et. Anc. XVI, 1914, pp. 399-404 (3 figs.), P. Perdrizet points out that the name Didas found by A. Reinach near Coptos is not Thracian but Egyptian, and has no connection with $\Delta i \zeta a s$ and other similar names. He also shows that the name on a unique coin of
 $\Delta \iota \xi a \tau \epsilon ̇ \lambda \mu \epsilon \omega s$ as published by Head (Historia Numorum, p. 243). The name $\Delta \iota \zeta \alpha \zeta \epsilon \lambda \mu \iota s$ is well attested.

Constantinian Coins from Egypt.-In J. Int. Arch. Num. XVI, 1914, pp. 1-27, J. G. Milne publishes a hoard of Constantinian bronze coins, 6,476 in number, purchased in the Fayam in 1905. They were probably hidden in the ground between 343 and 345 A.D. Three hundred and thirty-five cannot be assigned to any mint, but the others are distributed as follows: Alexandria, 1,592, Antioch, 1,611, Cyzicus, 845, Nicomedia, 539, Constantinople, 698, Heraclea, 220, Thessalonica, 196, Siscia, 42, Aquileia, 23, Rome, 285, Arelate, 56, Lugdunum, 13, Treviri, 19, Tarraco, 2. The foreign coins probably reached Egypt in the course of trade.

BABYLONIA, ASSYRIA, AND PERSIA

Striking Phenomena of Sumerian.-In J.A.O.S. XXXIV, 1914, pp. 321-328, J. D. Prince calls attention to the fact that one of the most striking characteristics of the Sumerian syllabary is the existence of a great number of words, apparently identical in sound, yet differing widely in signification. The following six principles must be understood in order to untangle the Sumerian syllabary. 1. Roots are often shortened from longer roots, as $d u$, worn down from $d u l, d u g, t u g$. 2. There was occasionally a distinction by means of tones as in Chinese. 3. There must also have been vowel shading as $d u$, $d i d u$ 'go' and its probable derivatives: $d u$ 'push; spread bricks' and 'raise' ('move'). This may well have been a simultaneous phenomenon with tone variation. 4. Often there may have been no distinction in sound at all, as in the similar sounding words in English. 5. Paronomasia, based on erroneous association of signs, played a great part. 6. Distinctions must have been made, as in Chinese, by means of combinations which fixed the meaning of the ambiguous syllable.

Chinese and Sumerian.-Under the title Chinese and Sumerian, C. J. Ball has published from the Oxford University Press, an elaborate volume on the common origin, which he believes to be demonstrable, of these two languages and systems of writing. In S. Bibl. Arch. XXXVI, 1914, pp. 269-273, XXXVII, 1915, pp. 24-33 (3 pls.), 50-59 (3 pls.), 75-86 (3 pls.), L. C. Hopkins criticizes the book from the point of view of a Chinese scholar objecting that some of the Chinese signs chosen for comparison are not the earliest forms, and that the modern pronunciation can be no guide to the pronunciation of 4000 в.с. when the Sumerian signs were in use.

Two New Sumerian Vocabularies.-In R. Assyr. XI, 1914, pp. 119-129 (4 figs.), F. Weidner publishes two new Sumerian vocabularies with Assyrian translation. The first is in the possession of Pastor A. Jeremias of Leipzig and contains a list of insects. The second, in the possession of Professor F. E. Peiser of Königsberg, is a sort of commentary which gives a number of new meanings for the sign $N I, Z A L$.

Religious Conceptions Underlying Sumerian Proper Names.-In J.A.O.S. XXXIV, 1914, pp. 315-320, G. A. Barton gives a study based on names in the Haverford collection. These tablets, though but four hundred in number, contain so many pay-rolls that they are particularly rich in proper names. Nearly 3,300 individuals are mentioned in them. Among the Sumerians the most common way of showing devotion by means of a proper name was to call the boy or girl a "servant" of some deity. Thus 85 different men mentioned in this collection bore the name Ur-Bau. Ur not only means "servant" but the "consecrated servant." Another form of name almost as popular was to call a boy the gàl or gàlu, i.e., the "man" of such and such a god. Thus we have Gad-Bau as the name of 28 individuals in these texts. Sometimes, apparently, it was the intention of the parent to place the child under the protection of any or every deity. In that case the infant was called Ur-dingirra, Gàl-dingirra, or Gim-dingirra, "servant of god," "man of god," or "maid-servant of god." There are also màny names which ascribe attributes of various kinds to the gods. Another series of names explains the attitude of the gods towards worshippers. Several names are formed on the analogy of the Biblical

Micah, "who is like Yahu?" and Michael. Sometimes the name is a prayer. Sometimes a name expresses the intercession of one god with another. Sometimes it expresses the aid which one god gives another. Another series of names indicates a tendency to fuse deities together. The deification of the Kings Dungi and Bur-Sin left its traces in the proper names of the period.

Two Chronological Tablets of the Reign of Hammurabi.-In R. Assyr. XI, 1914, pp. 161-164, A. Boissier publishes two new tablets containing the Sumerian names of the years of the reign of Hammurabi. These supplement the lists previously published by Scheil and King.

Foundation-Inscriptions from the Royal Palace at Erech.-In S. Bibl. Arch. XXXVII, 1915, pp. 22-23 (pl.), L. W. King describes two clay tablets found at Warka, the ancient Erech, probably during the extensive native digging which followed the German expedition under Dr. J. Jordan. Both the inscriptions relate to the same event, the building of his royal palace by Singashid, king of Erech, the longer text giving the additional information that the work was undertaken after the rebuilding of E-anna, the great temple of Ishtar at Erech, had been completed.

Fresh Light on the History of Esarhaddon.-In S. Bibl. Arch. XXXVII, 1915, pp. 47-49, C. H. W. Jorns discusses two new prisms of Esarhaddon recently discovered at Susa. The explorations carried on by the French at Susa, under the direction of J. de Morgan, have not only made known to us endless monuments of the ancient monarchs of Elam, but added invaluable sources of history for Babylonia. To them we owe the celebrated Code of Hammurabi; and recently several fragments of two prisms of Esarhaddon have come to light. They have been published with the utmost skill and care by V. Scheil, in Tome XIV of the Mémoires de la délégation en Perse. The same scholar has since obtained accurate copies of another prism, which he calls "S," of Esarhaddon. This is a duplicate, so far as we can judge from the fragments known, of the same text as that given by the first of the Susa prisms, and of the broken prism in the British Museum. The latter had hitherto been the only Assyrian authority for the events which immediately followed on the murder of Sennacherib.

The Wife of Ashurbanipal.-In Or. Lit. XVIII, 1915, cols. 37-38, B. MeissNER states that a relief was discovered in the city of Asshur depicting the queen of Ashurbanipal, who bears a close resemblance to the queen in the famous "garden relief." The name on this relief is broken, but begins with the ideogram for the city of Asshur. This name can be restored from a letter in the Harper collection written to Asshur-sharrat, mistress of the house of the crown-prince Ashurbanipal.

The Daughter of Nabonidus.-In R. Assyr. XI, 1914, pp. 105-117, P. Dhorme publishes a new inscription that mentions the daughter of Nabonidus. From this it appears that she was consecrated to the service of the temple of the god Sin at Ur. Nabonidus, himself, was the son of a priestess of the god Sin at Harran.

The Temple of Marduk at Babylon.-In C. R. Acad. Insc. 1914, pp. 437-444 (plan), M. Dieulafoy discusses the reports of the excavations on the acropolis at Babylon published by Koldewey, and compares the results attained with the data in regard to the temple of Bêl Marduk found on the tablet of Anu Bêlchunu.

The Assumption of Ishtar.-In R. Assyr. XI, 1914, pp. 141-158, F. ThureauDangin publishes a new tablet acquired by the Louvre which describes how the goddess Ishtar aspires to be queen of Heaven. The other gods and heavenly courtesans favor her desire and Anu consents. Accordingly "Ishtar with Anu, the king, occupies a brilliant dwelling and is exalted to be queen of heaven."

The Malediction in Cuneiform Inscriptions.-In J.A.O.S. XXXIV, 1914, pp. $282-309$, S. A. B. Mercer gives a history of the use of the curse in cuneiform literature from the earliest times down to the Persian period. The malediction as found in cuneiform inscriptions seems to have been employed as a means of praying down evil upon a person. There were two main classes, direct and conditional. A direct malediction was pronounced after the forbidden deed had been done. A conditional malediction is one which is invoked and will take effect if the forbidden deed be done. The most frequent source or cause of maledictions is found in the endeavor of kings to have their name and fame well preserved throughout the ages, and whoever failed to do whatever was calculated to bring that about was made the object of a malediction. Whoever seized the property of another, and tried to claim ownership; or whoever disturbed the grave of a king; or removed a boundary-stone was cursed. A malediction may come upon a man not only because of his own sins, but also because of those of his parents. In short, the smallest offence could cause a malediction, e.g. offence against the protective god of the family; against honor, the city, etc.

A Babylonian Tablet with Aramaean Docket.-In R. Assyr. XI, 1914, pp. 183-187 (fig.), V. Scheil publishes a contract-tablet from. Erech containing a contract dating from the second year of Cyrus. Around the edge is an Aramaic docket giving a summary of its contents.

Nurses in Ancient Babylonia.-In R. Assyr. XI, 1914, pp. 175-182, V. Scheil shows how the provisions of the Code of Hammurabi, section 194, concerning nurses who have charge of infants are illustrated by allusions in the contract and juridical literature.

The Origin of the Semitic Name for Iron.-In Or. Lit. XVIII, 1915, cols. 6-7, F. E. Peiser shows that in Assyrian and the other Semitic languages the name for iron is parzillu. In the Hittite group of languages the ending illu seems to form adjectives, and to be equivalent to the English ending ish or like. Parzillu, accordingly, would mean the Parz-ish metal. Parz would seem to be connected with the geographical name Parzuas or even with Parsu, "Persia." The Assyrian texts speak of Kizwadna as the land from which iron came. This is to be identified with Pontos on the shore of the Black Sea.

The Hittite Name for Silver.-In Or. Lit. XVIII, 1915, cols. 5-6, O. SchroeDER shows that the name of the Hittite kingdom which commonly is written phonetically $H a-a t-t i$ is occasionally written ideographically $A Z A G-U D-t i$, which is the sign for "silver" with phonetic complement, and from this he infers that the name for silver in the Hittite language was hat. Ibid. cols. 78-79, G. Möller shows that in old Egyptian hd and in late Egyptian hid (ht) is the word for silver. From this he infers that the Hittite word for silver is borrowed from the Egyptian. Ibid. cols. 79-80, O. Schroeder replies that gold is always the specific Egyptian metal in the Amarna letters, and that the word for silver in Egyptian was probably borrowed from the Hittites.

Gobryas and Xenophon's Cyropaedia.-In R. Assyr. XI, 1914, pp. 165-174, V. Scheil gathers up the cuneiform evidence concerning Gobryas and publishes
a new letter in which he is mentioned. He comes to the conclusion that the modern distrust of Xenophon's statement in regard to Gobryas is not justified. From the Babylonian texts it appears that Gobryas was a Babylonian chief of advanced age, experienced in war, governor of a province of Babylonia, that he surrendered to Cyrus without conflict together with the other Babylonians, that by his prestige and his knowledge of men and affairs he facilitated for Cyrus the conquest of Babylonia, and that he was the first to enter Babylon.

Persian Domes.-In Burl. Mag. XXVI, 1915, pp. 146-155; 208-213 (2 pls.; 15 figs.), K. A. C. Creswell traces the history and evolution of the dome in Persia. Domes are built by the most primitive peoples as a result of the lack of timber. They were older than the pyramids in Egypt and appeared very early in the East also, as is shown by a bas-relief representing domed peasants' huts found by Layard in the palace of Sennacherib at Nineveh (705-681 b.c.). In the West the dome was used in baths long before our era. All these early examples, however, are small and confined to buildings or parts of buildings of a secondary importance. The dome was either set over a circular space or else supported over a square space by a makeshift corner construction which could not be trusted on a large scale. Even in later highly developed buildings, like the Pantheon, Roman architects consistently kept to the circular plan for large domed buildings, though sometimes making them octagonal externally. The thing needed to make the dome practicable for important complex buildings was some method of fitting it over large square spaces, for round rooms, while admirable singly, would not combine in groups. The Persians, who met this need, played, therefore, a vital part in the evolution of dome architecture. In the palace of Firuzabad we have the earliest example, presumably, of the Persian solution of the problem. By means of the squinch, consisting here of a series of concentric arches thrown across the angle, the square is reduced to an octagon upon which it is easy to set the large dome, 45 feet in diameter. This palace is late Achaemenian, after 340 b.c., or early Sassanian, before 240 A.D.; it is hard to determine its date within much narrower limits. A later example is the palace at Sarvistan, dating 300-380 A.D. The development of the dome in Persia from the advent of Islam to the fifteenth century was toward a pointed shape of the maximum strength corresponding to the scientific results of the integral and differential calculus as applied to the problem of the mathematical theory of domes. This correct shape was only reached by experiment and not by calculation, since Newton did not invent the calculus, without which the problem is insoluble, until 1665 ; but many of the proportions, especially of the decoration, were undoubtedly worked out on a mathematical basis.

## SYRIA AND PALESTINE

A Moabite Seal.-In Pal. Ex. Fund, XLVII, 1915, p. 42, E. J. Pilcher describes a signet recently discovered at Kerak in Moab. The material is hematite; the face is convex; and a hole is drilled from end to end of the stone. Although this object was found in Moab, it is in the usual style of Jewish seals, and the lettering is of the Old Hebrew type. The inscription reads: "of Nazarel, the goldsmith."

The Divine Names Ya-u and Yahu.-In Z. Alttest. Wiss. XXXV, 1915, pp.

45-52, E. König discusses the relation between the Old Babylonian divine name Ya-u and Yahweh of the Old Testament. He maintains that the original meaning of Ya-u in Babylonian was "someone," and that it was an indefinite designation of deity that was widely used in Western Asia. The original Hebrew form Yahweh was shortened in proper names into Yahu, and in the period of the later monarchy this abbreviation began to be used as an independent divine name. This, accordingly, has nothing to do with the old Babylonian Ya-u.

The Inscriptions of Carchemish.-In S. Bibl. Arch. XXXVII, 1915, pp. $8-21$, A. H. Sayce discusses the principal inscriptions recently discovered at Carchemish and published by the Trustees of the British Museum. This publication is a very important accession to the progress of Hittite decipherment. For the first time we have a number of inscriptions which are complete and legible throughout; they were, moreover, executed under royal orders by skilled artisans, and the forms of the characters are therefore delineated with care and accuracy. They frequently enable us to restore the semi-legible or misformed characters of the inscriptions previously known to us, and thus to correct a number of errors due to the imperfection of our materials. As the inscriptions are not only numerous, but also belong to different periods, the variants occurring in them are frequent and helpful. At Carchemish, furthermore, where the native population was Aramaic, the Moschian-Hittite scribes did all in their power to enable their hieroglyphic script to be easily read, and, accordingly, reduced the hieroglyphic element in it to a minimum.

## ASIA MINOR

Caves in Asia Minor.-In Mitt. Vorderas. Ges. XIX, 1914, 2, pp. 1-96, E. Brandenburg gives the outline of a systematic account of caves and their architecture in Asia Minor and in countries influenced by Asia Minor (Greece, Etruria, etc.).

Silver Coinage of Smyrna.-In Num. Chron. 1914, pp. 273-298 (3 pls.), J. G. Milne describes and arranges chronologically under the names of the magistrates "the main silver series struck at Smyrna-the tetradrachms and drachms of Attic weight issued during the second and first centuries b.c." The basis for the study is the comparison of dies, and sometimes also of the bronze coinage, which is itself, however, with the other issues of silver and the solitary issue of gold, reserved for another article. This paper furnishes a valuable example of method. An interesting item is the exceptional strength of one obverse die, which is found in conjunction with twelve reverse dies. (See Num. Chron. 1910, p. 338, for similar statistics of relative durability.)

Hoard of Coins of Cnidos.-The hoard found at Dadia in the Cnidian Chersonese, mentioned by J. G. Milne in Num. Chron. 1911, p. 197, of which some coins were also published by Dr. Imhoof-Blumer in Num. Z. XLV, 1912, pp. 193 ff., has been irrecoverably dispersed. But some more coins of the same provenance are described in a supplementary note by Mr. Milne in Num. Chron. 1914, pp. 379-381.

Coinage of Pisidian Antioch.-A selection of the coins of Pisidian Antioch of the imperial period is described by G. F. Hill in Num. Chron. 1914, pp. 299-313 (pl.). By the examination of other coins found associated with those
described "provenance is shown, as always in the case of bronze coins, to be good evidence for attribution."

## GREECE

## ARCHITECTURE

A Plan of the Palace of Phaestus.-In Ann. Scuol. It. I, 1914, pp. 357364 (plan), L. Pernier presents a new plan of the palace at Phaestus which is more complete than any hitherto published. The dates of the different walls are indicated by the shading as being earlier than the first palace, contemporaneous with the first palace, contemporaneous with the second palace, and of later construction. A discussion accompanies the plan.

Prehistoric Bridge of Eleutherne.-In 'A $\rho$. ${ }^{\text {'E }}$. . 1914, pp. 230-232 (7 figs.), E. N. Petroulakis publishes photographs and drawings of a unique prehistoric bridge at Eleutherne, Crete. It has a triangular corbel arch of the Mycenaean type, which was repaired and strengthened under his direction. It was described, with a drawing, by Spratt, Travels and Researches in Crete, Vol. II, pp. 94 f.

The Interior Column-Capitals of the Temple at Bassae.-In 'A $\rho \chi$. ' $\mathrm{E} \phi$. 1914, pp. 57-70 (12 figs.), K. A. Rhomaios discusses the forms and arrangement of the interior column-capitals of the temple of Apollo at Bassae. Recently discovered fragments of the Corinthian capital and of the Ionic capitals corroborate in general the accuracy of the descriptions and drawings of Stackelberg, Donaldson, Blouet, and especially of Cockerell. Haller's journal, used by Cockerell, is also put in evidence. All this testimony, combined with the dimensions of the top courses of the engaged columns, shows that the Ionic capitals had abaci of the same width and thickness as those of the Corinthian capital, and in general had unusual proportions, e.g., less breadth and greater height, especially designed to harmonize with it. To the same end the corner capitals had anthemia between their volutes, and their abaci were 0.025 m . thicker than the others. The sides of these corner capitals, being more exposed to view, were exactly like the front face, while those of the others reproduced but half of the front face, i.e., one volute and a half echinus. An Ionic capital of limestone, fragments of which have been found on the site, was evidently made to replace a damaged marble capital. Its design, differing in many details from that of the original capitals, testifies to an artist's independent attempt to solve the problem of harmony. Mr. Rhomaios' study shows that Durm and others have erred in calling peculiarities of this temple "irregularities" or "infelicities," or in suspecting inaccuracies in the reports of earlier investigators. The Greek architect, here as elsewhere, was creating an organic whole the parts of which could not be made from any set of stock patterns.

The Entablature of the Temple of Athena at Priene.-In Ath. Mitt. XXXIX, 1914, pp. 72-82 (1 Beilage; 5 figs.), W. Wilberg proves that the accepted restoration of the temple of Athena at Priene without a frieze is erroneous. If the cornice were placed directly on the architrave the blocks of the coffered ceiling would reach so high as to conflict with the rafters. By the introduction of a frieze this difficulty is overcome. A comparison of drawings of the façade with and without a frieze shows that the former arrangement is aesthetically more satisfactory.

The Archaic Temples of Prinias.-In Ann. Scuol. It. I, 1914, pp. 18-111 (3 pls.; 64 figs.), L. Pernier discusses the archaic temples on the plateau at Prinias, Crete, excavated in 1907 and subsequent years. There were two temples side by side. Temple A consisted of a chamber with pronaos, the exact depth of which is uncertain; Temple B, which lay to the south and had a slightly different orientation, had a pronaos, cella and opisthodomos. It was also built on a level 0.45 m . higher. The relative dates of the two buildings has not been determined. Beneath Temple A are some pieces of wall dating from the end of the Minoan period. The most important sculptures were a series of slabs representing mounted warriors (see A.J.A. XIII, 1909, p. 504 , Fig. 5), five of which are preserved at least in part. The men are very diminutive in size as compared with the horses. The height of the frieze is 0.84 m . Parts of two archaic female figures seated on thrones above a relief representing panthers and deer were also found (see A.J.A. XIII, p. 505, Fig. 6). These figures were probably placed at the top of the doorway leading into Temple A; while the relief of the horsemen probably ran across the front of the temple above the pronaos. The most important of the objects of terracotta unearthed was a large "proto-Hellenic" pithos with decoration in relief. On the neck, twice repeated, a goodess with recurved wings is holding with either hand a horse by the fore-leg. Below are various bands of spirals, zigzags, etc., and in one band a chariot race. Some fragments of painted vases date from the latest Minoan times.

The Metopes from Thermus.-The metopes from Thermus are discussed by H. Kocir in Ath. Mitt. XXXIX, 1914, pp. 237-255 (3 pls.; 11 figs.). He divides the terra-cottas which decorated the roof of the temple of Apollo into two series. The later series is to be dated about $540 / 530$ b.c. The metopes, which are distinctly earlier, are to be brought into connection with the first series of roof terra-cottas, with which they correspond technically and stylistically, and are to be assigned to the latter part of the seventh century. Whether the later series of terra-cottas replaced the earlier on the same building, or belong to a second building, is uncertain.

## SCULPTURE

Two Mycenaean Fragments.-Two carved fragments discovered at Mycenae and now in the National Museum at Athens are published by G. Karo, Ath. Mith. XXXIX, 1914, p. 256 ( 4 figs.). One is the left hind leg from a statuette of a bull in dark green steatite; the other a female head in profile of lapis lazuli, and probably intended to be set in gold. The former is the first piece of Minoan sculpture in the round in stone to be found; the latter is in the style of the Cretan stone reliefs and frescoes of the best period (sixteenth to fifteenth century b.c.) and unequalled in delicacy of execution.

An Unknown Group of Statues from Sicyon.-In J. Int. Arch. Num. XVI, 1914, pp. 71-80 (3 figs.), I. N. Svoronos publishes a bronze coin of Sicyon recently acquired by the National Museum at Athens. On the obverse is the head of Julia Domna, and on the reverse a group of three statues. In the middle is Hermes bearing a ram on his shoulders; at the right is a fully draped female figure carrying a flat basket; and at the left another draped female figure. The writer identifies the group as Hermes, Opora or Carpo, and Chtho-
nophyle. The last named was a local nymph, daughter of Sicyon and mother of Polybus. Nothing is known of this group; but the Hermes is to be identified with the Hermes Criophoros of Wilton House, a type which differs from the Hermes Criophoros of Onatas and that of Calamis.

A Discus-Thrower on a Greek Scarab.-In 'A $\rho \chi$. 'E $\phi$. 1914, pp. 241-244 (fig.), D. Evangelides publishes a fine intaglio representing a discus-thrower, cut on the under side of a scarab of sardonyx(?). It is said to have come from Apollonia in Northern Epirus. The attitude of the figure is much like that of a discus-thrower on coins of Cos of about 479 в.c., representing a momentary pose just preceding that chosen by Myron for his Discobolus. Though somewhat archaic, it is of high artistic merit in its harmonious composition, vigorous action, and skilfully rendered detail. It may, perhaps, be a copy of a masterpiece by Pythagoras, whose rival Myron then produced his famous Discobolus to prove his superiority.

The West Pediment Sculptures of the Parthenon.-As a supplement and critique of the recent works by Smith and Collignon on the Parthenon sculptures, W. R. Lethaby (Burl. Mag. XXVII, 1915, pp. 14-21 and 66-72; 9 figs.) discusses the west pediment of the Parthenon. The close resemblance between the Athena of this gable and the Athena type which Furtwängler identified as the Lemnian favor Furtwängler's attribution of the latter to Phidias. The Athena and Poseidon in the middle of the gable must have been influenced in design by Myron's group of Athena and Marsyas. The two figures attending Athena's chariot can be identified as Hermes and Nike, Poseidon's retainers as Amphitrite and Iris. To the left, beyond the halfman half-serpent Cecrops and his daughters, the two figures in the angle were Cranaus and Amphictyon. To the right, beyond Erechtheus and his daughters, including Creusa with her son Ion, were Cephalus and Procris. The time represented was dawn.

The Holkham Head-A Reply.-In J. H. S. XXXIV, 1914, pp. 312-320 (2 figs.), C. Waldstein makes a drastic criticism of the strictures of G. Dickins on his earlier article identifying a colossal head at Holkham Hall with the Aphrodite of the east pediment of the Parthenon (see ibid. 1913, pp. 276 ff.; 1914, pp. 122 ff.). Particularly the colossal mask at Turin which Dickins suggests for comparison is shown to present the utmost possible contrast, with its post-Scopadian, even late Roman, exaggerated sensationalism, against the calm, regular-featured, somewhat cold fifth-century type of the Aphrodite.

The Sorrento Base.-In J. Int. Arch. Num. XVI, 1914, pp. 153-210 (2 pls.; fig.), I. N. Svoronos argues that the "Sorrento base," of which two pieces are preserved in the museum at Sorrento, was a copy dating from the first century b.c. of the base of the statue of Demeter Agelastos of Praxiteles at Megara. He interprets the reliefs on ${ }^{\circ}$ the four sides thus: A. Demeter seated on the Agelastos Petra while Hecate and two of the daughters of Celeus stand before her; B. Rhea in the presence of Demeter and Persephone at Eleusis; C. the Anthesteria before the temple of Demeter at Eleusis; D. Demeter, seated on a throne with Persephone and Iambe standing on either side, receives five women, i.e., Metaneira and her four daughters.

A Draped Statue from Epidaurus.-In R. Arch., fifth series, I, 1915, pp. 40-46 (3 figs.), M. Collignon publishes a well preserved statue of a youth in
the possession of Mr. Yanakopoulos at Athens. It is said to be from Epidaurus. The type is that of the Aeschines in the museum at Naples, but the head is that of a youth. The hair is cut nearly straight across the forehead, in the style introduced in the Augustan period. The head recalls Argive types of the fifth century b.c. Probably the statue was honorary. The date is probably the end of the first century or the second century A.D. The continuance of classical traditions is an interesting feature of Graeco-Roman art.

Reliefs from Tegea.-In Ath. Mitt. XXXIX, 1914, pp. 189-235 (2 pls.; 9 figs.), K. A. Rhomaios publishes a series of reliefs from Tegea representing banquet scenes, and discusses at length the problems raised by the whole class of banquet reliefs. The Tegean examples seem to be votive reliefs to heroes or heroized dead, not grave monuments, and the term "funerary banquet" does not apply. The same is true of numerous reliefs in which the banqueters are characterized by symbols (snake, horse's head, dog) as divinities or heroes. Gods and protecting spirits are often represented on grave reliefs with or without the deceased, but representations of heroized dead are comparatively rare. The archaic Spartan reliefs are votive, not funerary.

A Votive Relief to Asclepius.-In 'A $\boldsymbol{\prime}$. ' ${ }^{\text {E } \phi .1914, ~ p p . ~ 136-138 ~(f i g .), ~ P . ~}$ Kastriotes publishes a fragmentary votive relief to Asclepius, found by him in excavations on the southeast slope of the Acropolis. A woman, kneeling by the bedside of a patient, touches in supplication the robe of Asclepius. Such scenes of kneeling in prayer are very rare in Greek art. The Greeks regularly stood to pray, as they do even to the present day, regarding kneeling as servile or womanish. Men never knelt, women rarely.

The Laocoon Group.-In Jb. Kl. Alt. XXXIII, 1914, pp. 686-697 (2 pls.; fig.), R. Foerster disputes some of the conclusions of Klein (Geschichte der griech. Kunst, III, pp. 311 ff .) in regard to the Laocoon group. Neither the Pompeian wall-painting nor the description in Virgil have anything to do with the famous group from Rhodes. Filippino Lippi's drawing is based upon Virgil. Laocoon appears in art as early as the fifth century, as an Etruscan gem in the British Museum proves; but the Apulian vase fragment published in Mon. Ant. IX, pl. 15, where the serpents are seen devouring the sons, illustrates a version of the story attributed to Lesches by Apollodorus (V, 17), and has nothing to do with the Rhodian group. Foerster believes that the Laocoon of the Vatican dates from about 50 b.c., that it was brought to Rome by Titus who was in Rhodes in 69 A.D., and that some time after the death of Titus it was put in the underground chamber where it remained until its discovery in 1506.

A Relief from Hypata.-In 'Apx. 'E $\phi .1914$, pp. 89-90 (fig.), N. I. Giannopoulos publishes a rough low relief from Hypata, Aeniania, representing the back view of a marching soldier who is shouldering his javelin. The figure resembles closely the reverse of coins of Aeniania dated about 150 в.c.

Hermes with the Lotus Leaf.-In Röm. Mitt. XXIX, 1914, pp. 168-185, R. Foerster discusses a series of statuettes of Hellenistic type representing Hermes with a head ornament which he identifies as a lotus leaf. The god, therefore, is depicted as the giver of wealth, the lotus being the symbol of the Nile, whose rise was the cause of Egyptian prosperity. Furtwängler had thought the ornament the pen of Thoth, which would represent Hermes as the god of learning.

Alexander Helios.-In R. Arch. XXIV, 1914; pp. 94-101 (3 figs.), Gustave Blum publishes a head of Alexander-Helios in Bologna and discusses similar heads, portraits of Alexander, and figures of Helios and a related divinity who appears in Mithraic monuments. The Azara head is asserted to be the most faithful portrait of Alexander. The "colossus of Rhodes," by Chares (or Chareas), probably had features resembling those of Alexander. The "Capitoline Alexander" may be derived from it.

A Bronze Statuette of Athena Nike.-In R. Arch., fifth series, I, 1915, pp. 20-25 (fig.), B. Filow publishes a new photograph of a bronze statuette from Kirilovo and maintains his opinion that it represents Athena Nike, not (as G. Seure, R. Et. Gr. XXV, 1912, pp. 24-39; R. Arch. 1913, i, pp. 45 ff. has declared), an armed Artemis. The probable date of the bronze is the third century A.D.

## VASES AND PAINTING

The Master of the Achilles Amphora in the Vatican.-Another nameless Attic vase painter has been reconstructed with infinite patience by J. D. Beazley (J.H.S. XXXIV, 1914, pp. 179-226; 4 pls.; 45 figs.) out of the minute details of figures, draperies and patterns on a large number of red-figured vases of the early free period. The two finest are an amphora in the Vatican with a standing figure of Achilles $[A X I \wedge \wedge E V \Sigma]$ and a neck-amphora with twisted handles in the Cabinet des Médailles at Paris, which shows Euphorbus carrying the infant Oedipus $[E V \phi O P B O \S, O I \triangle I \Gamma O \Delta A \S]$. The others include some rare shapes, as a pointed amphora, and a few large vases (stamnus, amphoras), but the greater number are lecythi, both red-figured and with white-ground, "Nolan" amphoras, and other small vases. The designs, which are chiefly of quiet subjects with no fighting, most frequently consist of single figures and rarely more than three figures are shown together. Of the large number of vases which display his distinct style, some are undoubtedly the work of pupils or imitators, but all are from the workshop or the school of a single master.

An Attic Cylix Signed by Anacles.-In $R$. Arch., fifth series, I, 1915, pp. 4-12 (6 figs.), Morin-Jean publishes and discusses a cylix signed 'Avák ${ }^{2} \in s$ $\varepsilon_{\pi} \boldsymbol{r} \boldsymbol{l} \in \sigma \in \nu$ in the collection of M. Farochon (Morin-Jean, Le dessin des animaux en Grèce d'après les vases peints, p. 171, figs. 195, 196; Perrot and Chipiez, Hist. de l'art, X, p. 235, fig. 152), which has been cleansed and restored. The form, with high foot and deep bowl, is characteristic of Anacles and some of the other "little masters." The colors used are black, the orange yellow of the clay, and a violet red. The figured decoration consists of two animals of the deer species, very delicately drawn. Under the handles are palmette scrolls. Only one other vase certainly signed by Anacles is known, and that one (in Berlin; Bull. dell' Instituto, 1879, p. 4; Wiener Vorlegeblätter, 1889, pl. VII, No. 3) may be signed by him as a painter working for Nicosthenes (Pottier, Catalogue, p. 701). The vase of M. Farochon is, therefore, the only sure testimony to Anacles as an independent potter.

A Boeotian Relief Bowl.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 50-57 (pl.; 6 figs.), F. Versakes publishes a "Boeotian" bowl of terra-cotta (Athens, National Museum, No. 11,797) with a band of reliefs representing four milling scenes,
and one labelled Kivaioou. The grain is being ground at a "power-mill" by an ass and at two simpler hand mills by women, and is being sifted by a woman with a hand sieve. The Kivaiooc scene, perhaps, represents the execution of two reprobate vaudeville actors, or possibly a burlesque, by such actors, of such an execution. The bowl dates from the early years of the Roman empire.

Cleagoras of Phlius.-Cleagoras of Phlius, a painter of the fifth century, is rescued from oblivion by W. Leonhard in Ath. Mitt. XXXIX, 1914, pp. 144147. He is referred to by Xenophon, Anabasis VII, 8,1 , as follows: 'Evte $\hat{\theta} \boldsymbol{\epsilon} \boldsymbol{e v}$




Megalographia.-In Röm. Mitt. XXIX, 1914, pp. 194-199, G. Rodenwaldt defines megalographia (Vitruvius, VII, 5) as the depicting of noble subjects. Such paintings were usually also of greater size than those with a less noble theme.

## INSCRIPTIONS

The Building Accounts of the Parthenon.-In 'Apx. 'Ep. 1914, pp. 197-206 and p. 272 ( 3 figs.), A. D. Keramopoullos supplements the article of Dinsmoor, A.J.A. XVII, 1913, pp. 53-80, by a description of four new fragments of the text of the inscription, discovered by himself and others, viz. R, RR, S, and $T$, and publishes a revised text of the parts affected. R'and $S$ join, continuing the lines of the front face of $F$. T joins the left edge of $I$, containing parts of lines 96-99. RR, on the back of fragment R , joins C and Q , nearly filling the gap between them and the back face of F . Dinsmoor's line 57 of the second column of the reverse side of the stele should be numbered 45 ; his line 34 of the first column of the front side should be numbered 37. Upon R, which seems to belong to the third year of the building (445/4), the clerk and some of the epistatai seem to be identical with those of another building account, I.G. 296. It seems probable that there was a central controlling board for regulating the disbursements for all state buildings at this time, and that later, with the increase in building activities, separate committees were appointed for specific pieces of work. A fund of at least 200,000 drachmae, on hand as early as the third year and still intact in the eighth, but spent by the fourteenth, was probably a big loan negotiated at the start to ensure the completion of the building in case other sources of revenue failed.

A List of Athenian Magistrates.-A list of Athenian magistrates in 14-13 b.c. inscribed on a stele in the museum at Athens is published by D. Fimmen, Ath. Mitt. XXXIX, 1914, pp. 130-137 (fig.). He cites eleven similar inscriptions, each on a separate stele, and concludes that it was the custom to set up such slabs in chronological order on the Acropolis.
The Granting of Athenian Citizenship.-In Ath. Mitt. XXXIX, 1914, pp. 257-315 ( 7 figs.), A. Wilhelm publishes a detailed commentary on a long series of decrees of the late fourth and the third centuries recording the bestowal of citizenship on forcigners.

The Words for Tomb in Archaic Inscriptions.-The words $\sigma \hat{\eta} \mu \alpha$ and $\mu \nu \hat{\eta} \mu \alpha$, explained as synonyms by the lexicographers, are used with different mean-
ings in archaic inscriptions. The former is the sign or mark by which the tomb is recognized. In Homer, and occasionally in the Anthology, it is used of the burial mound, and in most cases includes the monument erected on the mound, though occasionally it refers only to the latter. M $\bar{\eta} \mu \alpha$ is always used with reference to the person buried in the tomb, and designates his monument or memorial; it is not used of the grave as such. Later the distinction disappeared. (F. Eichler, Ath. Mitt. XXXIX, 1914, pp. 138-143.)

Corrections.-Corrections of minutiae in the published tests and commentaries of a number of Greek inscriptions are presented by A. Wilhelm in Ath. Mitt. XXXIX, 1914, pp. 177-188. Th. SaUciuc, ibid. p. 236, announces that the first line of the inscription published by him, ibid. XXXVIII, 1913, p. 285, is to be restored $\lambda a] \mu \pi[\alpha \dot{\alpha} \delta a$. The epigram refers to the victory of an ephebus in a torch race.

An Inscription from Aegina.-In 'A $\rho \chi$. 'E $\phi .1914$, pp. 92-94 (2 figs.), P. N. Hereiotes argues that the rough, bar-shaped stone inscribed Mè kive $\boldsymbol{\tau} \dot{\delta} \delta$ (I.G.IV, 176) was a weight for a well-sweep, the groove in the centre having been made for the noose of rope on which the stone was hung.

A Mantinean Inscription.-In Ann. Scuol. It. I, 1914, pp. 1-17 (3 pls.), D. Comparetti presents a new study of the early inscription from Mantinea first published by Fougères in B.C.H. XVI, 1892, pp. 568 ff. It has to do with a judgment against persons guilty of sacrilege towards Athena Alea.

Inscriptions of Hypata.-In 'A $\rho$ X. ${ }^{\text {'E }} \phi$. 1914, p. 88 (fig.), N. I. Giannopoulos publishes two inscriptions of Hypata in Aeniania, one of which is a fragment of a decree, of the third century в.c., apparently a treaty between the Hypataeans (or Aenianes) and the Pharsalians. Ibid. 1914, p. 89, the same writer publishes supplementary readings and notes on I.G. IX $^{2}, 29,36$, and 45.

The Temple Chronicle of Lindus.-Messrs. Marcus and Weber have published as No. 131 in their series of Kleine Texte a revised edition by Chr. Blinkenberg of the great inscription of the temple of Athena found at Lindus in 1904 and first published by him in 1912 in the Bulletin of the Royal Academy of Denmark. A new study of the stone has made it possible to correct and supplement the reading in several places, although there are still gaps. A brief commentary accompanies the text. The inscription was written in 99 b.c. In mediaeval times the stone was used in a pavement. [Die Lindische Tempelchronik, neu bearbeitet von Chr. Blinkenberg. Bonn, 1915, A. Marcus und E. Weber's Verlag. 8vo. M.1.50.]

An Inscription of Tenos.-In 'A $\rho$ x. ${ }^{\text {'E }} \boldsymbol{\mathrm { C }} .1914$, pp. 87 f ., A. Wilhelm corrects the readings of four names in an inscription of Tenos published in M.B. 1911, p. 253.

Inscriptions of Rhodes, Thera, Naxos, and Arcadia.-In 'A $\rho \chi$. ${ }^{\prime}$ E $\phi .1914$, pp. 130-135 (2 figs.), F. Hiller publishes several new inscriptions, and notes and corrections on a few already published. The former group include: an honorary inscription of Rhodes, of the first century of our era; the will of Dorocleidas of Thera (са. 170 в.c.) and a law of the Association of Relatives to which he belonged and which was founded by the heirs of Epicteta (I.G. XII ${ }^{3}$, 330); four sepulchral inscriptions of Alipheira, Arcadia, communicated to the author by K. Kourouniotes. The corrections include: notes on I.G. V², 419 (Phigaleia), some of them suggested by A. Wilhelm, and a revision of the
genealogical note on the family of Philopoemen and Polybius (Lycosura, I.G. ${ }^{2}$, 535).

The Decree of the Aetolians in Behalf of the Mytilenians.-In 'A $\rho \chi$. 'E $\phi$. 1914, pp. 84-87, A. Wilhelm corrects restored readings of I.G. XII ${ }^{2}, 16$, proposed by P. Papageorgiou ('A $\rho \chi$. 'Eф. 1912, p. 225) and gives his own reading of the whole decree.

Inscriptions from Thessaly.-In 'A $\rho x .{ }^{\text {'E }} \phi .1914$, p. 92, N. I. Giannopoulos publishes a supplementary note on two inscriptions published by him, ibid. 1913, p. 218, No. 1, and p. 219, No. 4.

Pergamena.-I. The inscribed bases from Delos, I.G. XI, 4, 1206-1208, which supported statues of the heroes of Teuthrania are perhaps to be brought into connection with the bases, ibid. 1107, 1108, with the names of Eumenes and Attalus. All five may belong to a larger series of statues representing the mythical rulers of the region and the members of the royal house of Pergamon.
 tion from Pergamon, No. 613 (O.G.I. 264) should be corrected to $\dot{\varepsilon} \pi i$ tò̀ ко[ $\rho v \phi \dot{\nu} \nu]$, since ко入 $\omega \nu$ ós is not a suitable designation for the acropolis of Pergamon. The form кoрvфós occurs fifteen times in I.G. IV, 926, 11. 17 ff. (A. Wilhelm, Ath. Mitt. XXXIX, 1914, pp. 148-160.)

An Inscription of Nisyros.-In 'A $\rho \chi$. 'E $\phi$. 1914, p. 3, A. S. Diamantaras publishes a dedicatory inscription, found at Nisyros, in honor of Caesar Britannicus. As it is dedicated by the ' $\mathrm{I} \sigma \theta \mu \omega \tau \tau a$, it is likely that it was originally set up at the Isthmus of Cnidos.

The Molpoi Inscription.-In Eranos, XIV, 1914, pp. 1-20, O. A. Danielsson discusses certain readings of the Molpoi inscription from Miletus.

An Inscribed Silver Plate from Aidone.-In Ann. Scuol. It. I, 1914, pp. 113-118 (pl.; fig.) D. Comparetti discusses an inscribed silver plate found near Aidone in Sicily. It is a mortgage in the form of a sale subject to redemption ( $\pi \rho \hat{a} \sigma \iota s \in \pi i \lambda b \sigma \epsilon \iota$ ), and was probably preserved in some private building. It is in Greek and dates from the first century b.c.

A Christian Inscription from Cyrene.-In Ann. Scuol. It. I, 1914, pp. 161-167 (3 figs.), D. Comparetri publishes a Christian inscription in red paint on the wall of a tomb at Cyrene. It was incorrectly copied by the artist Pacho and published in his Relation d'un voyage dans la Marmarique, la Cyrénaïque (Paris, 1827-29), and reproduced in C.I.G. IV, No. 9136. It concerns several people who were killed in an earthquake, and buried in this tomb. It probably dates from the last decade of the fourth century when Cyrenaica is known to have been devastated by a terrible earthquake.

Recent Work in Greek Epigraphy.-The annual review by M. N. Tod of the progress of Greek epigraphy in the year 1913-1914, which is crowded out of the 'Year's Work in Classical Studies' by pressure of material, finds a place in J.H.S. XXXIV, 1914, pp. 321-331. Under the headings General, Attica, Peloponnesus, Central and Northern Greece, Islands of the Aegean, Asia Minor, Outlying Regions (Sicily, Sardinia, Italy, Thrace, Macedonia, Russia, Syria, Egypt, Cyrenaica), he records with brief comments 168 books, articles, and new editions, dealing with Greek inscriptions both technically and in their application to larger interests. Of especial importance are the following: a new edition of Larfeld's Griechische Epigraphik; various articles on the origin of the classical alphabets; the beginning of a smaller reissue of I.G. II and III (Attic
inscriptions after 403); a volume of Delphian inscriptions by G. Colin; the fourth section of the inscriptions of Delos, edited by P. Roussel; various articles on new inscriptions from Ionia, and a volume on the Delphinium at Miletus by G. Kawerau and A. Rehm; and a volume on Scythians and Greeks by E. H. Minns.

A Bulletin of Greek Epigraphy.-In R. Ét. Gr. XXVII, 1914, pp. 441-477, P. Roussel gives a summary of the Greek inscriptions from all parts of the ancient Greek world published during the last few years.

## COINS

Epigraphical Notes on Athenian Coinage.-On several points connected with Athenian public money matters suggested by Professor Percy Gardner's article on the 'Coinage of the Athenian Empire' (J.H.S. 1913, pp. 147 ff.) a fuller use of the evidence of inscriptions is enlightening. The treasure lists and the building inscriptions of the Parthenon with their records of payments, show the presence of foreign coins in circulation or hoarded in Athens and give some limits for their values in Attic drachmas. Thus it can be shown that electrum staters of Lampsacus were in Athens at least as early as 447 and that Cyzicene staters were used on several occasions between 418 and 414 to supplement Attic currency in payments to strategi, while the ratio of these coins to Attic drachmas as $24: 1$ is sustained, though not proved, by possible restorations. An Olbian inscription shows the multiplicity of coin standards in use in the fourth century, when the value of the staters of Cyzicus was fixed by law as 21 or 23 local silver drachmas, and other coins were left to the mercies of the market. An unpublished fragment of the records of the chryselephantine statue in the Parthenon mentions the purchase of some gold staters of Croesus at a surprisingly high price, apparently about three times their intrinsic value. The inference from certain inscriptions, of a second issue of gold coins at Athens in 393 b.c. is found to be untenable, and Gardner's supposed discovery that, contrary to the testimony of Thucydides, Melos was a part of the Athenian empire in 425 is also a misunderstanding, the record on which it is based being one of assessments, not of payments. A list of the entries of non-Attic coins in the Athenian treasure records of the first half of the fourth century includes Cyzicene gold staters, Phocaean gold staters and hectae, Persian gold darics and silver shekels, and some miscellaneous foreign silver. (A. M. Woodward, J.H.S. XXXIV, 1914, pp. 276-292.)

Some Hellenistic Portraits.-In a study of some Hellenistic portraits on coins and in sculpture of the first four Ptolemies, of Philetaerus, Attalus I, and Euergetes II of Pergamon, Antiochus II of Syria, Agathocles of Bactria, and Thucydides and Aristotle, G. Dickins makes some new attributions and suggests the principles on which such portraits should be studied. Heads on coins made for the home city of a prince were less likely to be accurate portraits than those made for places where he was less well known; and in general the most individual features of a head were more likely to be accurately and hence uniformly reproduced, while considerable variation was allowed in the less marked traits. An interesting head of Thucydides at Corfu represents the disillusioned, returned exile, a man considerably older than the type known in the Naples herm and a head at Holkham Hall. A bronze bust from Herculan-
eum is to be restored to the Aristotle family, in spite of some differences due to dates, and is the only one which has the nose intact. (J.H.S. XXXIV, 1914, pp. 293-311; 13 figs.)

## GENERAL AND MISCELLANEOUS

Minoan Tombs and the Little Palace at Cnossus.-In Archaeologia, LXV, 1914, pp. 1-94 (7 pls.; 97 figs.), Sir Arthur Evans describes a series of tombs found on the edge of the plateau overlooking the harbor of Cnossus in 1909. A deposit of stone vases and bronze weapons dating from the third Middle Minoan and first Late Minoan periods led to the discovery. In Tomb 1 there were found fragments of vases of the "Palace" style, a chalcedony seal with figures of two men and a mastiff carved upon it, and a ring with a cult scene (see A.J.A. XVIII, p. 290). The ring was too small for an adult and the writer suggests that such rings were made for the dead and fitted to the fingers after the flesh had decayed. At a later date a secondary tomb (Tomb 1 A) was built, opening at right angles upon the dromos. In Tomb 3 were found the head of a mace of breccia, two gems, two knives, a razor, a bronze mirror, a paste gem, and some vases of Late Minoan III date. In Tomb 4, which is of the same date, that is the first half of the fourteenth century, there were found some vases and a gold ring. Tomb 5 (Tomb of the Polychrome Vases) was one of the largest yet found. Towards the middle was a stone bench with parts of a skeleton near it. In the tomb were a spiral silver ring, and some remarkable high, two-handled goblets with designs in red and blue. They preserve the Middle Minoan polychrome tradition, and were evidently made for the use of the dead. The tomb dates from the first Late Minoan period. Tomb 6, which dates from the period of Late Minoan III, contained among other things a gold ring with two figures grasping hands cut on the bezel, two rude clay figurines, a curious double vase, a bronze mirror, etc. Tomb 2 (Tomb of the Double Axes) was the most important excavated. From its rear wall there projects a buttress upon which is carved a half column slightly greater at the base than at the top. There is a bench on three sides of the room which Evans thinks was intended to represent a Minoan living room. The tomb resembles some Etruscan tombs in plan. At the right of the entrance was a cist 1.26 m . deep. Two gold beads, two gold-plated studs for a sword, two bronze knives, about twenty thin bronze arrow-heads, a carnelian gem with the figure of a lion upon it, two flat beads and a disk of amber, and some fine painted vases of the "Palace" style were found in it. The vases show the influence of the painted stucco of the palace in their decoration. A broken ritual vase with high handles and a cover were found near the column; also some pieces of a bull's head rhyton, and two votive double axes. The tomb dates from the period of Late Minoan II.

Dr. Evans also describes the building west of the palace at Cnossus to which he has given the name of "Little Palace." It seems to have been used largely for cult purposes. In the northwest corner was a shrine, the wooden columns of which had fifteen flutings in relief, as impressions on the later plaster blocking show. In some of the basement rooms the ceiling was supported by stone pillars as in the great palace. Square pits in the floor near the pillars in the southeastern room may have been used for libations, and the stone bases near
by were probably for ritual purposes. Ritual vases were found in an adjoining room. The pillars also served as supports for the columns of the floor above. In the southwest angle of the building were found an inlaid bull's head rhyton of steatite, another of painted terra-cotta, two alabaster sockets and one of steatite, evidently ritual objects. In this vicinity a crude lead statuette of a woman in an attitude of adoration came to light. It dates from the third Late Minoan period. A peculiar ritual vase has a high, recurved spout and decoration of papyrus stalks, etc., in relief. The bull's head rhyton of steatite was the most interesting single object found in the building. The horns were separate pieces and probably of wood covered with gold foil. The ears were also attached. One eye is preserved. The lens is of rock crystal with pupil and iris painted on the under surface. The pupil is scarlet, the iris black, and the rest of the cornea white. Surrounding this is a border of red stone. This eye gives a very lifelike appearance to the head. Vases in the shape of a bull's head are known at Cnossus as early as the second Middle Minoan period.

A Cyzicene School of Art.-The new influence, neither Attic nor Peloponnesian, which appeared in Greek art about the middle of the fifth century and which is most conspicuously characterized by clinging, transparent, and windblown draperies, is discussed at some length by B. Schroeder in Jb. Arch. I. XXIX, 1914, pp. 123168 (5 pls.; 29 figs.). This art as a whole is Ionian, and its peculiarities belong essentially in their origin to the technique of drawing on a large scale as for wall paintings. These compositions were copied by vase painters, and by


Figure 1.-Torso of Poseidon from Cyzicus sculptors, first in relief and then in the round in life-size marble and smaller bronze. The art can be traced back through all these channels to Micon, the foreign artist who painted battles with Amazons and Persians and perhaps other subjects in the Stoa Poikile and the Theseum at Athens, about $470-460$ b.c. and was the teacher of Paeonius and Polygnotus. Geographical clues point to the district of Cyzicus as the centreof the influence and this view is confirmed by the especial feature of the draperies. Real life would present such effects to the artist's eye only in a region swept by strong sea-winds, especially the north wind. Among the works standing in more or less close relation to this school are the following: a group of Attic red-figured Amazon vases dated about 460-450 в.c., of which the Penthesilea vase at Munich is the finest; some early Melian reliefs; the friezes and statues
of the Nereid Monument at Xanthus in Lycia, before 450; the Nike of Paeonius at Olympia, before 423; the Ficorini cista and the Talos vase; coins of Cyzicus and of Mallus in Cilicia; the friezes at Phigalia and at Trysa; the Boreas acroterium at Delos; the sculptures of the Argive Heraeum, the Erechtheum, and the temple of Nike Apteros, including the balustrade; some metopes of Temple E at Selinus; the Tyrannicides at Naples; the Dexileos monument; the Venus Genetrix; the Ares Borghese; the Artemis Colonna; some small bronze statuettes at Berlin and Paris; a torso of Poseidon from Cyzicus, now in the British Museum (Fig. 1), and many other well-known works. Some of these are doubtless of the marble of Proconnesus, which would be used at Cyzicus.

The Site of the Odeum of Pericles.-In 'A $\rho \chi .{ }^{\prime} \mathrm{E} \phi .1914, \mathrm{pp} .23-25, \mathrm{G}$. Mistriotes lays emphasis on the evidence justifying his belief that Kastriotes' recent excavations on the east slope of the Acropolis have uncovered the site of the Odeum of Pericles (cf. ibid., pp. 141 and 143-166, A.J.A. XIX, p. 344).

The Odeum at Gortyna.-In Ann. Scuol. It. I, 1914, pp. 373-376 (4 figs.), L. Pernier gives a brief account of the excavation of the odeum at Gortyna, where the great inscription was found by Halbherr in 1884. The building was completely cleared in 1913.

Greek Art in Soldiers' Graves.-Under the title Die Griechische Kunst an Kriegergräbern (Leipzig, 1915, Teubner. 31 pp.; 24 pls.; 9 figs. M. 2), Professor Franz Studniczka has reprinted as a monograph his article published in $J b . K l$. Alt. XXXV, pp. 285 ff . The grave monuments of warriors from Mycenaean times onward are collected and discussed. The writer's object is to call attention to what Greek art did for Greeks who fell in battle.

The Long Walls of Athens.-In J.H.S. XXXIV, 1914, pp. 242-248, M. O. B. Caspari examines briefly the evidence for the generally accepted view that there were in the fifth century three walls connecting Athens with the coast, -a north and a south or middle wall, running to the Piraeus, and a third or Phaleric wall, running further to the east and taking in Phalerum, at the east end of the bay of that name. He concludes that there never was a third wall; that Phalerum was at the west end of the bay, close to Piraeus and included by the eastern (southern) of the two parallel walls; and that for a time, in the days of Pericles, a single wall, the northern, perhaps with double face, may have answered the purpose of preserving a connection between the city and the port.

The Trireme.-In the ninth volume of the new series of the Annual published by the University of Lund, A. M. Alexanderson publishes a monograph on the Greek trireme. He discusses at length the positions of the rowers, the size of the trireme, its oars, rigging, anchors, and other equipment, its seaworthiness, its capacity for carrying sail, its crew, its use for special services, etc. [Den Grekiska Trieren. Af A. M. Alexanderson. Lunds Universitets Arsskrift, N. F., No. 7. 147 pp.; 3 pls.; 30 figs. 8 vo. Kr. 3.00.]

The Stylis and Other Parts of the Greek Ship.-In J. Int. Arch. Num. XVI, 1914, pp. 81-152 (21 figs.), I. N. Svoronos discusses the names of several parts of the Greek ship. 1. The carliest example of the $\sigma \tau v \lambda i s$, which was in use throughout the historic period, is found on a prehistoric terra-cotta from Syros probably dating from about 3000 в.c. The monuments, especially coins, show that it had nearly one hundred different forms, but the type adopted by

Alexander after the congress at Corinth had made him $\mathfrak{\eta} \gamma \epsilon \mu \dot{\nu} \nu$ aủrox $\rho \dot{\alpha} \tau \omega \rho$ in the campaign against Persia, was an upright staff with a cross-bar near the top. This is the form shown on the coins of Alexander and his successors and carried by the Victory of Samothrace. Sometimes a banner was attached to the cross-bar, which might also have an inscription upon it such as $\mathrm{Z} \epsilon \dot{\mathrm{v}} \mathrm{\Sigma} \boldsymbol{\Sigma} \omega \tau \boldsymbol{\eta} \rho$. This implies that the $\sigma \tau v \lambda l s$ was a sacred symbol. The shape in the form of a modern flag is known, but is rare. 2. The ă $\phi \lambda a \sigma \tau o \nu$ found on the stern of ships of war and other important vessels, but not on merchant ships or fishing boats was a semaphore, or signal post, i.e., it served as the support for


Figure 2.-Inner Design in Phiale at Athens
shields, streamers or lanterns used for signals. The admiral had his seat near it, so that his orders could immediately be signalled to the fleet. It was made of several narrow strips of wood fastened together by one or two cross-pieces and curving inward. The $\sigma \tau v \lambda i s$ rested against or upon one of these crosspieces. 3. The $\sigma \tau \delta \lambda o s$ was an ornament in the shape of a horn which projected outward above the prow. Below it was the $\pi \tau v x \dot{\eta}$ on which were painted the ship's eyes and the name. At the end of it was a figure such as an Athena, or the fore part of a lion, a bull, a rooster, etc. This was the
dкробто́入ıv. It was apotropaic in character. 4. The front part of a ship often represented an animal which was a totem. The writer suggests that many of the monsters of Greek mythology owe their origin to these figures.

An Emblema from a Phiale in Athens.-An emblema from a Phiale in Athens is published by G. Matthies in Ath. Mitt. XXXIX, 1914, pp. 104-129 (2 pls.; 9 figs.). It is made in three pieces: (1) a silver ring 13 cm . in diameter, with traces on its lower surface of the large bronze phiale in which the emblema was set. Its upper surface was covered by (2) a second ring decorated with representations of the labors of Heracles and a Dionysiac thiasus. The space within the ring was occupied by a bronze boss with a very elaborate geometric design made up of nine circular fields (Fig. 2). The figure designs on the ring were of gold and electrum set into the silver ground, with details of niello. The decoration on the boss consisted of thin threads and plates of gold, silver, and electrum pressed into the bronze after it had been softened by being heated. The emblema is a master-piece of antique goldsmith's work. The representations of Heracles recall types of the second century b.c., and the ornaments of the boss are related to floor and ceiling decorations of the same period.

A Bronze Helmet from Domokos.-A bronze helmet from Domokos is published by N.I. Giannopoulos in Ath. Mitt. XXXIX, 1914, pp. 316-319 (2 figs.). It is of characteristic Thessalian form, and is to be dated in the fifth century on the evidence of the inscription, חórìos $\theta \epsilon \sigma \sigma a \lambda o ̂ v$. Popilus was probably a Thessalian general.

The Tragic Stage.-Under the title $\Sigma \kappa \eta \nu \dot{\eta} \tau \rho a \gamma \iota \kappa \grave{\eta}$. Eine Studie über die scenischen Anlagen auf der Orchestra des Aischylos und der anderen Tragiker (Tübingen, 1915, Mohr. 62 pp.; 4 figs. M. 2), F. Noack publishes a study of the orchestra in the early Greek theatre, particularly in the time of Aeschylus. He discusses the period before the erection of stage buildings; their erection and development; the back scene; the entrances and exits in Aeschylus; scenery; the $\pi \alpha \rho a \sigma \kappa \dot{\eta} \iota \alpha$ and $\pi \rho о \sigma \kappa \eta \quad \nu \iota \nu$; the front of the Telesterion; the Megaron of Lycosura; partitions between the columns in the Telesterion; and concludes with a sketch of the historical development of the stage buildings before the Hellenistic theatre.

The Prothuron of the Ancient Theatre.-In Cl. Phil. X, 1915, pp. 117-138, K. Rees discusses, partly on the basis of the amphora of Ruvo, but chiefly by means of literary evidence, the use, in Greek and Roman plays, of the $\pi \rho \delta \theta v \rho \rho \nu$, for the purpose of presenting to the spectators events occurring indoors.

The Boundaries of Meliteia, Pereia, Peumata and Chalae.-The boundaries of Meliteia, Pereia, Peumata and Chalae are discussed by F. Stählin in Ath. Mitt. XXXIX, 1914, pp. 83-103 (pl.; 6 figs.), on the basis of the inscriptions and the existing streams and ruins.

Supplementary Chronological Studies.-In 'A $\rho \chi$. 'E $\phi$. 1914, pp. 185-192, K. Maltezos revises his articles on the Attic calendar (ibid. 1913, pp. 109124) with the help of Vol. I of the new Editio Minor of I. G., without, however, affecting his results, except that the year $327 / 6$ b.c., not discussed before, appears from I.G., Ed. Min. 356 and 357, to have been "ordinary."

Leucas or Ithaca.-A contribution to the long-lived Leucas-Ithaca controversy, by A. Shewin, treats the question only as it is involved in the passages about the return voyage of Telemachus from Pylos to Ithaca, in which
he has to take a different route from that used in going out, in order to avoid the ambush laid for him by the suitors. On the whole, this portion of the evidence appears to be less in favor of the Leucadists than of the Ithacans. (J.H.S. XXXIV, 1914, pp. 227-241; map.)

Pagasae-Demetrias.-In 'A $\quad$. ${ }^{\text {'E } \phi .1914, ~ p p . ~ 90-92, ~ N . ~ I . ~ G i a n n o p o u l o s ~}$ criticizes the views of Arvanitopoullos as to the location of Pagasae and of Demetrias published in Практıкá, 1912, maintaining, with Beloch (Klio, 1911, pp. 142 ff .), that Pagasae was merely enlarged and renamed Demetrias by Demetrius Poliorcetes. A vigorous reply is made by Arvanitopoullos, ibid. pp. 264-272, who quotes at length from his earlier article: Demetrius built a new city Demetrias, whose ruins, among which were found the painted gravestelae, have been until recently called Pagasae; walls of an older city of considerable strength and extent, to the south of Demetrias and joining the walls of the latter, are to be identified as the walls of Pagasae.

Yanetsa.-In 'A $\rho \chi$. 'E $\phi$. 1914, pp. 184 f. G. Mistriotes upholds his view of the etymology of the name Yanetsa propounded ibid. 1913, pp. 20 and 230
 in Pella a typically Greek city) against the view of Hatzedakes, Annual of the University (Athens), 1913-14, p. 71, who derives it from 「ıápv $\mathrm{s}=$ Johannes. In 'A $\rho$ र. ' $\mathrm{E} \phi .1914, \mathrm{pp} .138 \mathrm{f}$. G. P. Orionomos contests both of these views, holding that the name should be spelled $\Gamma$ evtrod, a purely Turkish word, Yenidje="New City," the older and larger town, about three miles away, being called Eskidjé = "Old City."

The Old Iphigenia.-In R. Arch. XXIV, 1914, pp. 200-204, S. Reinach discusses the lines of Lycophron's Alexandra (193-196):

 Kai $\tau \grave{\eta} \nu$ ä $\phi a \nu \tau o \nu \epsilon i \delta o ; ~ \dot{\eta} \lambda \lambda о \omega \mu \hat{\epsilon} \nu \eta \nu$


He concludes that Iphigenia was not transformed into an old woman to deliver her from sacrifice at Aulis (as has been stated by many compilers in ancient and modern times), but that the metamorphosis took place later, to fit her for her office of priestess.

## ITALY

## ARCHITECTURE

Tombs of Canosa.-In Röm. Mitt. XXIX, 1914, pp. 260-296, H. Nachod describes five tombs at Canosa (Canusium), one not yet published, the others inadequately, though all have been known for a long time. The older ones date from about 300 в.с., the others from 250 в.с. These tombs preserve the shape of a house that preceded the atrium house, $i$. $e$., short entrance, main room, small rear chamber, all lying in one axis. The older structures show architectural details going back to very old Greek models; the later ones indicate a more recent Greek influence, though not of the contemporary style of Greece proper.

## SCULPTURE

The Bronze Head of Augustus in the Vatican Library.-In Röm. Mitt. XXIX, 1914, pp. 186-193 (3 pls.), B. Nogara discusses the bronze head of Augustus in the Vatican library. It is of unknown provenance, was first published by Pistolesi in 1829, and has been in its present position at least since 1845. It probably belonged to a body clothed in a tunic or a cuirass. It represents Augustus at the age of 35 or 40 , and, next to the one from Meroe, is the best bronze portrait of the emperor extant.

## VASES AND PAINTING

Tragic Scenes on Italo-Greek Vases.-In connection with the explanation of three Apulian vases, commonly interpreted as showing the killing of Antigone and Ismene by Laodamas, V. Macchioro (Neapolis, II, 1915, pp. 254282) defends the view that the tragic scenes upon Italo-Greek vases are derived, not directly from the stage, but from Greek tragic paintings of the fifth and fourth centuries. A valuable list (pp. 272-276) is given of paintings representing scenes from Greek tragedy.

Chrysippus and Antigone on Apulian Vases.-The full-sized drawings by Lübke of scenes from Theban mythology on three Apulian amphoras, are published with comments by C. Robert (Jb. Arch I. XXIX, 1914, pp. 168-173; 3 pls., 2 figs.). One in Naples and one in Berlin give the rape of Chrysippus by Laius, with his father Pelops in one, his pedagogue in the other, trying to rescue him; the third, also in Berlin, represents a version of the story of Antigone in which, instead of being put to death at the bidding of Creon, she has remained hidden in the country with her husband Haemon, and is brought before the king when the identity of their son is discovered. All three compositions show the attempt to combine distinct and inconsistent versions of the myths, but the exact poetical or traditional sources are not clear.

The Paintings in Etruscan Tombs.-In Atene e Roma, XVII, 1914, cols. 129-164 (6 figs.), P. Ducatr gives a general account of the paintings in the tombs of Etruria, describing some of the more important examples. He divides them into two general classes: 1, those dating from the end of the seventh to the end of the fifth century b.c., in which Greek influence was very strong; and 2, those dating from the fourth to the beginning of the second century, in which the influence of Greek art becomes weaker and weaker and the Etruscan character of the paintings marked. The second class is far inferior to the first.

Fabius Pictor and the Origin of Painting at Rome.-In Studi Romani, II, 1914, pp. 243-256, A. Reinach discusses Fabius Pictor, the frescoes of the temple of Salus, and the origin of painting at Rome. He concludes that the temple in question might have been decorated at the date assigned by tradition, and that some idea of the character of the decoration may be derived from the frescoes found in a tomb on the Esquiline discovered in 1875 near the church of S. Eusebio. The paintings, however, were not the work of a Fabius Pictor; their assignment to a man of that name is due in part to the relation of the Fabii to the decoration of the temple and in part to a misunderstanding of the surname. The latter is interpreted by Reinach as "the Tatooer," rather than "the Painter."

The Sources of Pompeian Wall Paintings.-G. Lippold uses the painting of the Punishment of Dirce in the House of the Vettii in refuting Klein's theory that the Pompeian fresco painters followed plastic originals in their compositions rather than earlier paintings. This and other scenes he finds more closely allied to Etruscan urn reliefs, which are themselves allied to other flat compositions, whether Pergamene reliefs or fifth-century paintings, than to such groups as the Farnese Bull. The problem of the Laocoon group is analogous. (Jb. Arch. I. XXIX, 1914, pp. 174-177; 2 figs.)

The Telephus Fresco from Pompeii.-It has been recognized that the Telephus fresco from Pompeii is derived from Pergamene art, but whether it is a combination of several types, or a copy of a single famous Pergamene work has remained uncertain. F. Matz, Ath. Mitt. XXXIX, 1914, pp. 65-71 (fig.), decides in favor of the second alternative.

The Aldobrandini Marriage Scene.-In Arch. Anz. 1914, cols. 447-453, G. Rodenwaldt discusses the architectural background or framing of the Aldobrandini marriage scene and its relation to scenes from the theatre and to the first period of Pompeian wall painting. He finds no reason for thinking the border is an addition of the Roman copyist.

## INSCRIPTIONS

A Military Diploma.-In C. R. Acad. Insc. 1914, pp. 505-519, J.-B. Mispoulet discusses a military diploma found at Krnjesevci in Lower Pannonia in 1898 and published as No. CII in the Corpus. It is probably to be dated between 74 and 78 A.D., and belonged to a soldier of the legio $I I$ adjutrix.

An Oscan Defixio.-An Oscan defixio, found at Cumae and probably dating from not later than 100 b.c., is published with full notes by F. Ribezzo in Neapolis, II, 1915, pp. 293-300.

Inscriptions from Tauriana.-Eight inscriptions from Tauriana secured by Professor Orsi for the Museo Civico at Reggio, are described by N. Putortl in Neapolis, II, 1915, pp. 342-344. None is earlier than the third century after Christ. The most interesting is one put up by a bishop in memory of his son.

Sepulchral Inscriptions from Sorrento.-In Studi Romani, II, 1914, pp. 346347, L. Correra publishes nineteen sepulchral inscriptions of the classical period from Sorrento, one of which mentions a structor and another a mirmillo. The latter suggests the presence of an amphitheatre at Sorrento, according to Correra.

Latin Inscriptions in Philadelphia.-In Old Penn, April 10, 1915, pp. 873877 (fig.), J. C. Rolfe publishes nineteen short Latin inscriptions at the University of Pennsylvania. The most important are No. 3, D. M. Nemoniae Crustinae; and No. 8, C. Pompeius C. L. Ga. Pompeia C. L. Lais. patro suo. The name Crustina does not appear elsewhere; and the abbreviation Ga.for Gaia is apparently unique.

Epigraphic Bulletin.-In their 'Revue des Publications relatives à l'Antiquité romaine' for July-December, 1914 (R. Arch. XXIV, 1914, pp. 361-383), R. Cagnat and M. Besnier give the text of 83 inscriptions ( 8 in Greek and the rest in Latin) and notes on epigraphic publications. An index is appended (pp. 384-400).

## COINS

Coinage of Umbria and Picenum.-The influence of the Siculo-Illyrican colonization upon the heavy coinage of Umbria and Picenum, as shown in the choice of coin-types, is discussed by G. Pansa (R. Ital. Num. XXVII, 1914, pp. 329-348; fig.).

Coins found near Verona.-A rich find of imperial aurei and denarii made at Menà, in the province of Verona, as far back as Feb. 4, 1903, is now described by Luigi Rizzoli, Jr. (R. Ital. Num. XXVII, 1914, pp. 349-364). The hoard consisted of 1,227 pieces, of which 1,129 (20 aurei and 1,109 denarii) are now traceable. Dates range from Nero to Hadrian. The editor lists the more common coins according to Cohen, reserving the rarer pieces for later treatment.

Hoard of Coins in Sardinia.-At Villaurbana (Cagliari) has been discovered a group of imperial large bronzes, 286 in number, with one middle bronze of the elder Philip. The coins are for the most part in a remarkably good state of preservation, and are of fine patina. They range in date from Trajan to Trebonianus Gallus. Antonio Taramelli has bestowed them in the National Museum at Cagliari, and describes them at length in R. Ital. Num. XXVIII, 1915, pp. 73-84.

Halved Coins and a Find of Denarii at Terni.-Lorenzina Cesano describes a recent find of coins near Terni. The hoard consisted of 35 denarii dating between 129 and 36 в.с., one anonymous denarius of much earlier date, three asses and half of a fourth. Signorina Cesano takes occasion to revise, with these coins as a text, some of the dates assigned to the issues by Babelon, and then proceeds to treat of the question of halved coins. These she concludes to be due to a rough-and-ready device of the people to supply themselves with smaller denominations for purposes of change. It is impossible to tell whether the Roman government permitted, tolerated, or combated the custom; but the last is unlikely in consideration of the fact that the fashion of thus dividing coins lasted, especially in Gaul, down into the Middle Ages. It appears to have originated in Greece. (R. Ital. Num. XXVIII, 1915, pp. 11-38; pl.)

Roman Coins and Historical Reliefs.-In B. Soc. Ant. Fr. 1914, pp. 245252, V. Chapor calls attention to the importance of Roman coins with representations of sculptured reliefs. They are valuable for the history of Roman art, and suggest that the origin of historical Roman reliefs should not be sought at Pergamon, but at Rome.

Coinage of Augustus.-L. Laffrancer publishes the third part of his treatise on the coinage of Augustus, discussing the issues from the mint of Rome. (R. Ital. Num. XXVII, 1914, pp. 307-328; 2 pls.)

The Coins of Antinous.-In J. Int. Arch. Num. XVI, 1914, pp. 33-70 (5 pls.; 3 figs.), G. Blum publishes an elaborate study of the coins which bear the portrait of Antinous. Most of them were issued between 134, when Antinous died, and 138, the date of Hadrian's death; although at Bithynium his portrait without the legend continued to be used under Commodus and Caracalla. The issue of these coins was widespread. In Egypt Antinous came to be identified with Osiris.

Helena, Wife of Crispus.-As already noted in this Journal (XVII, p. 559; XVIII, p. 237), Percy. Webb, in Num. Chron. 1912, pp. 352-360; 1913, pp.

377-379, challenged the very existence of Helena, wife of Crispus, admitted by Jules Maurice in his Numismatique constantinienne. His arguments for a time upset the confidence of M. Maurice, who now (Num. Chron. 1914, pp. $314-329$; pl.; 3 figs.) returns with certainty to his former faith, supporting it by a study of the coiffures of Roman empresses of the Constantinian period.

## GENERAL AND MISCELLANEOUS

The Prehistoric Settlement at Castel Manduca.-In B. Pal. It. XL, 1914, pp. 164-174, R. Zanocco desciribes a prehistoric settlement at Castel Manduca near Vicenza, dating from the end of the Stone and the beginning of the Bronze Age.

The Stone Age on the Maiella Range.-In B. Pal. It. XL, 1914, pp. 30-42, $95-121$, U. Rellini discusses the Stone Age on the Maiella range (near Sulmona).

Axes of Stone and Copper at Syracuse.-In B. Pal. It. XL, 1914, pp. 43-52, P. Orsi describes some stone and copper axes of the Basile collection now in the museum at Syracuse.

Antiquities of the Early Iron Age.-In B. Pal. It. XL, 1914, pp. 73-83, L. Pigorini discusses various objects dating from the beginning of the Iron Age, found in the excavations at Veio and Bologna.

The Necropolis at Pianello.-In B. Pal. It. XL, 1914, pp. 121-163, G. A. Colini continues his article on the necropolis of Pianello near Genga (Ancona).

The Nuraghe Temple at Vittoria di Serri.-In Mon. Ant. XXIII, 1915, cols. 313-439 (8 pls.; 119 figs.), A. Taramelli discusses the nuraghe temple and other primitive remains at Vittoria di Serri, and describes in detail the metal objects (figures, etc.) and terra-cottas discovered on the site.

Bronze Arrow-Heads.-In B. Pal. It. XL, 1914, pp. 56-71, G. Belluci discusses some bronze arrow-heads, and argues that bronze-tipped arrows were not employed as weapons but only as votive offerings.

The Cave of La Buca Tana.-In B. Pal. It. XL, 1914, pp. 1-29, A. Minto and N. Puccionr publish the results of the latter's renewed examination of the cave called La Buca Tana near Lucca. It contained fragments of human skeletons, animal bones, stone arrow-heads, bits of pottery, and other objects dating from the end of the neolithic and the beginning of the bronze eras.

The Walls of Croton and of Hipponion.-In Röm. Mitt. XXIX, 1914, pp. 143-169, A. W. Byvance traces the course of the walls of Croton built in the fifth century and of Hipponion (Vibo, Monteleone) restored by the Carthaginians 379 b.c. He also discusses the topography and the extant remains of these cities.

Appearance of the Ancient City of Rome.-In Cl. Jour. X, 1915, pp. 312322 , F.S. Dunn calls attention to the effect which new constructions, repairs, and ruins must have had upon the appearance of the city of Rome, in contrast to the neat and orderly look of most modern restorations.

The Porticus Europae.-A. Reinach (Neapolis, II, 1915, pp. 231-253) attempts to show that the work of art which gave its name to the Porticus Europae at Rome was not a painting but a sculptured group by Pythagoras, brought from Tarentum.

The Residents of Pompeii.-In Neapolis, II, 1915, pp. 305-341, M. della

Corte continues from an earlier number his detailed identification of the residents of the different houses at Pompeii.
Glass Disks with Portraits in Gold Leaf.-In Röm. Mitt. XXIX, 1914, pp. 240-259, (pl.), Carlo Albizatti discusses three glass disks, two in the Vatican, and one at Brescia, with portraits in gold leaf. They date from the middle of the third century A.D., and are among the finest examples of the portraiture of the time.
The Mosaic Portrait of Virgil.-In Mell. Arch. Hist. XXXIV, 1914, pp. 287-304, Jean Martin defends his belief in the authenticity of the portrait of Virgil on the mosaic of Sousse (cf. Gauckler, Mon. Piot, IV, pp. 232-244), the very early date of its original, and the consequent non-Virgilian authorship of the first seven lines of the Aeneid. This defense is called forth by the criticisms of Pascal (Athenaeum, Pavia, II, 1, pp. 29 ff .) and Comparetti (Atene e Roma, 1914, pp. 1 ff .) directed against Martin's first paper on the subject ( $M$ el. Arch. Hist. XXXII, 1912, pp. 385-395).
Roman Paints.-In Rōm. Mitt. XXIX, 1914, p. 220-239 (colored plate), E. Raehlmann gives the results of a miscroscopic and chemical examination of specimens of Roman paints found at Herne St. Hubert, Belgium, in a fourth century tumulus. A large number of them are water colors, containing mineral, vegetable, and animal matter held together by gum arabic. India ink also occurs. Many of them are identical with the pigments used in the wall paintings at Rome and Pompeii.

Ancient Inkstands.-In B. Soc. Ant. Fr. 1914, pp. 128-132 (3 figs.), L. Demaison publishes three Roman inkstands in the museum at Reims; a fourth also from Reims is in his own possession. They are of terra-cotta, circular in shape, and vary from 5 to 7 cm . in height. The writer also calls attention to six vases of peculiar shape at Reims. They have a high foot supporting a shallow bowl in the rim of which at equal intervals are four sockets. The purpose for which they were intended is not clear.
A Will in Latin.-In C. R. Acad. Insc. 1914, pp. 524-533, Seymour de Ricci discusses a papyrus copy of a will in Latin per aes et libram as set forth in Gaius II, 102-103. The document was acquired in Egypt in 1911 and is now in Berlin.
Clearing the Roman Imperial Fora.-In Mh.f. Kunstw. VII, 1914, pp. 390392 ( 8 figs.), W. Bombe gives a brief account of the plan to clear off the Roman imperial fora.
A Bulletin on Excavations and Discoveries.-In Studi Romani, II, 1914, pp. 343-345, an official bulletin of the minister of public instruction, relating to the conducting of excavations and the publication of the finds, is reprinted with comments.

Children of Divorced Parents.-In Studi Romani, II, 1914, pp. 257-260, E. Costa discusses the status of the children of divorced parents, as shown by Graeco-Egyptian documents of the Roman period.

## FRANCE

Prehistoric Remains in Gatinais.-In L'Homme préhistorique, II, 1914, pp. 193-212 (14 figs.), P. Bovex describes the prehistoric. remains in the southern part of Gatinais. These consist of fourteen menhirs, not all of them
complete, a dolmen (at Gien, destroyed in 1850), stones for polishing and various other stones.

The Dolmen-like Structure of Alise.-In R. Et. Anc. XVII, 1915, pp. 43-62 (3 figs.), J. Toutain calls attention to the dolmen-like temple of Bellona at Sigus and argues that this is evidence that the structure at Alise was also a temple, and not a baker's oven. In Bulletin des fouilles d'Alise, I, 1915, pp. 70-74 (3 figs.), E. Esperandieu points out that the bronze heads and coins found near the building by the Société des Sciences de Semur in 1912 show that it dates from the third century A.D.

The God Lug, Mother Earth, and the Lugoves.-In R. Arch. XXIV, 1914, pp. 205-230, J. Lotн discusses the etymology of the Celtic name Lug, the legends connected with the god, his connection with Maia (Rosmerta), who is a goddess of the Earth, and the nature of the Lugoves. Lug, a sun-god, was identified by the Romans with Mercury, as Rosmerta, the earth-goddess, was identified with Maia. The Lugoves are a kind of Matres connected with Lug.

The Goddess Maia.-In R. Arch. XXIV, 1914, pp. 182-190 (4 figs.), E. Babelon discusses a silver bust belonging to the "Treasure of Berthouville" (or of Bernay, as it is sometimes called) in the Cabinet des Médailles. This bust was for many years separated from the rest of the treasure. It has been interpreted in various ways. Comparison with other monuments, which, like this bust, exhibit a female figure with wings in the hair, shows that the person represented is Maia, who appears as the associate of Mercury and endowed with his attributes, whether under the name of Maia or that of Rosmerta.

The God with the Mallet.-In $R$. Arch., fifth series, I, 1915, pp. 26-39 (3 figs.), H. Hubert publishes a bronze statuette found at Orpierre, HautesAlpes, now at St. Germain-en-Laye. It is poor work, but based on good models. In the right hand the figure holds a drinking vessel, and the left hand rests on a staff to which a cylindrical object probably belongs, forming, with the staff, a mallet. The head of the figure is crowned with leaves and the body is draped with a hide. The type is that of Silvanus, who is often identified with the God with the Mallet (Sucellus). The identification rests not merely upon identity of plastic types. Sucellus was a rural deity, god of fertility, god of beer, hence of the grain from which beer is made. Silvanus was also a god of fertility. Two figures in the museum at St. Germain (Nos. 3 and 127 in Reinach's catalogue) are not Jupiter and Hercules respectively, but SucellusSilvanus.

Two Gallo-Roman Monuments.-In R. Arch., fifth series, I, 1915, pp. 1-3, J. Dechelette explains the disk on the relief in Beauvais (Esperandieu, Basreliefs de la Gaule, p. 157, No. 3923) as a hurling disk, used as a weapon. The relief formerly at Luxembourg, now lost (Espérandieu, op. cit., p. 258, No. 4081) he interprets as Heracles leading Cerberus. Several reliefs relating to Heracles are at Arlon.

The Excavations of La Cheppe, in 1857.-In R. Arch. XXIV, 1914, pp. 191199 (3 figs.), É. Esperandieu publishes an account by the Lieutenant Colonel Dogny, and his replies to questions asked by Commandant Aubry de la Noë, relating to the excavations carried on in 1857 at La Cheppe, called the Camp of Attila, not far from Châlons.

A Roman Building at Aix-en-Provence.-In B. Soc. Ant. Fr. 1914, pp. 292-

297 (fig.), G. Lafaye gives a brief account of a Roman building at Aix-enProvence destroyed in 1760. It was known as "la Bastide forte," and was evidently a well-house. The Louvre has a drawing of it made by Peiresc in 1672.

Painted Glass Vases.-In B. Soc. Ant. Fr. 1914, pp. 256-269 (3 figs.), A. Héron de Villefosse discusses several painted glass vases until recently preserved in France. They fall into two classes, one decorated with vines, fruit, flowers, etc. (four vases), and the other with scenes of combat (two vases). Two vases of the first type, one complete and the other fragmentary, were found at Fraillicourt (Ardennes) in 1907 and were unpublished. They were in the museum at Reims which was completely destroyed by the Germans.

Latin Inscriptions at Limoges.-In B. Soc. Ant. Fr. 1914, pp. 172-178, A. Blanchet calls attention to five Latin grave inscriptions found at Limoges in the eighteenth century.

## SWITZERLAND

The Dispater of Viège.-In R. Ett. Anc. XVII, 1915, pp. 63-67 (5 figs.), C. Jullian suggests that the peculiar object on the front of the bronze Dispater of Viège (Reinach, Bronzes, p. 139) is a pot-hanger. Ibid. pp. 145-147 (fig.), W. Deonna suggests that it is a solar symbol. Ibid. pp. 209-210 (9 figs.), L. de Vesly argues that it is a key.

## GERMANY

Palaeolithic Remains in Southwestern Germany.-In Mitt. Anth. Ges. XLIV, 1914, pp. 44-62 (2 pls.; 28 figs.), H. Obermaier and P. Wernert discuss the finds of palaeolithic implements in southwestern Germany during the last ten years, particularly at Lichtenfels, Neu-Essig, and Happurg. They also publish a revised list of the places in Germany where Acheulian remains have been discovered.

## SWEDEN

Archaeology in Sweden.-In Fornvännen for 1913, pp. 1-27 and 61-91 (35 figs.), O. Montelius discusses the date at which the use of iron became general in Europe; pp. 28-60 and 91-124 (26 figs.), E. Eкноғf makes a study of the mediaeval churches of Gotland, which number over ninety, and tries to establish their chronology and the later restorations; pp. 125-212 (5 maps; 81 figs.), S. Erixon discusses the remains of the Stone Age in the province of Blekinge; pp. 213-244, H. Rosén discusses the god Frey and the animal cults connected with his worship; pp. 245-316 (110 figs.) give a list of the acquisitions of the Historical Museum and the Coin Cabinet of Stockholm during the year 1913.

## GREAT BRITAIN

The High Terrace of the Thames.-In Archaeologia, LXV, 1914, pp. 187212 (pl.; 18 figs.), R. A. Smith and H. Dewey describe the excavations made in 1913 on the high terrace of the Thames in an effort to determine the strata in which certain palaeolithic implements were found; and describe the palaeoliths from Wansunt pit, Crayford.

Cinerary Urns of the Early Iron Age.-In Proc. Soc. Ant. XXVI, 1914, pp. 128-133 ( 6 figs.), R. A. Smith discusses two cinerary urns of the early Iron Age of which fragments were found at Deal. They are of a thin, dark brown ware, slightly burnished and decorated with an incised step pattern which was derived originally from the Greek fret. They probably date from the fifth century b.c., and are an important addition to the antiquities of the earliest Iron Age in Britain.
Flint Implements from near Avebury.-In Proc. Soc. Ant. XXVI, 1914, pp. 73-85 (13 figs.), H. G. O. Kendall discusses the types of flint implements found on the surface near Avebury.

Romano-British Potteries near Glastonbury.-In Proc. Soc. Ant. XXVI, 1914, pp. 137-143 (5 figs.), A. Bulleid discusses the Romano-British potteries located about eight miles west-north-west of Glastonbury. They extend for three miles along what was once a swamp, and must have flourished during the latter part of the Roman occupation of Britain, especially about 230 A.d. The different types of vessels found are described.

## AFRICA

Inscriptions from Gigthis.-In Mél. Arch. Hist. XXXIV, 1914, pp. 267286, L. A. Constans discusses nineteen inscriptions from Gigthis in Tunis, which had been published incorrectly or not at all. Gigthis was discovered in 1860 and is one of the best known of the ancient harbors on the Lesser Syrtis.

Inscriptions from Djemila.-In R. Et. Anc. XVII, 1915, pp. 34-36, R. Cagnat publishes two Latin inscriptions from Djemila (Algeria), the ancient Cuicul. One is a dedication to Mars Augustus and the Genius of the Colony, made by a certain T. Flavius Brencus. The second concerns a veteranus who is designated as acceptarius, a word not found elsewhere, which must mean a veteran who at the end of his term of service has received a lot of land instead of money.

The Barbarian Jewelry of La Calle.-In B. Soc. Ant. Fr. 1914, pp. 212-216 (fig.), Baron J. de Baye points out that the "barbarian" jewelry found at La Calle in Algeria in 1894 and now in the Musée de Saint-Germain-en-Laye has pieces of malachite inlaid in it, and that malachite comes from the Ural Mountains. Similar jewelry was found at Bône in 1888. The Vandals of Africa are thus seen to have had jewelry resembling that of the Goths, Franks, Burgundians, etc.

## UNITED STATES

A Catalogue of the Cesnola Collection of Cypriote Antiquities.-The Metropolitan Museum of New York has recently issued a catalogue of the Cesnola collection of Cypriote antiquities by Professor John L. Myres of the University of Oxford. The whole collection was thoroughly cleaned and studied and many discoveries were made, such as that Minoan numerals and a measure of va'ue are found in inscription No. 1868; that a portrait statue (No. 1363) probably represents Amasis, king of Egypt, etc. The pottery is classified in nine divisions of which three are devoted to the Bronze Age and three to the Iron Age. A history of the Cesnola collection and of Cyprus in antiquity, as
well as a selected bibliography, accompanies the work which is really a treatise on Cypriote antiquities. There are 5,985 entries in the book. [Metropolitan Museum of Art, Handbook of the Cesnola Collection of Antiquities from Cyprus. By John L. Myres. New York, 1914, Metropolitan Museum. lv, 597 pp.; 490 figs. 8vo. \$2.00.]

Greek, Etruscan, and Roman Bronzes in the Metropolitan Museum.-The Catalogue of the rich collection of Greek, Etruscan, and Roman bronzes in the Metropolitan Museum contains (in addition to the table of contents and a full index) a brief account of the chief acquisitions, a description of ancient bronzes, alloys, technical processes, and patina, an account of the "bronze disease" and its cure, a selected bibliography, and a description and discussion of 1,868 bronzes. These are classified as (1) statues, statuettes, and reliefs, and (2) implements and utensi's. The statues, etc., are arranged chronologically, with a separate division for Italiote and Etruscan works, and the implements and utensils are grouped under thirteen subdivisions. The arrangement is clear and practical. The descriptions, some of which are very brief, whereas others reach the proportions of real essays, are accompanied by numerous bibliographical references, and the illustrations greatly increase the value of the book. [Gisela M. A. Richter, Greek, Etruscan, and Roman Bronzes. New York, 1915, the Metropolitan Museum of Art. xli, 491 pp.; 712 figs. 4to.]

Classical Bronzes in the Metropolitan Museum.-In Art in America, III, 1914, pp. 1-13 (2 pls.), Miss G. M. A. Richter gives a brief account of the classical bronzes in the Metropolitan Museum of New York with illustrations of ten specimens.

## EARLY CHRISTIAN, BYZANTINE, AND MEDIAEVAL ART

## GENERAL AND MISCELLANEOUS

The Golden Gate in Constantinople.-The Golden Gate in Constantinople is discussed by E. Weigand in Ath. Mitt. XXXIX, 1914, pp. 1-64 (6 pls.; 9 figs.). It was built by Theodosius the Younger between 425 and 430 A.D. as an organic part of his new city wall. The acanthus leaf of the capital used on the main gate is the first developed example of the canonical Byzantine type which goes back to a late Hellenistic type of acanthus. The fore-gate, more unusual in its architecture, shows in its details the same development of early Byzantine forms. The acanthus type of the capital, which has been thought to be isolated, has its roots far back in antiquity, and its development can be traced step by step. In the early Roman imperial age a unified style of architecture was formed, and spread through the empire. But East and West soon separated, and developed in parallel lines, borrowing traits from one another. Byzantine art inherited not only what was common to both, but also what was best in the artistic and technical achievements of each component. The fourth century marks the end of the antique world, in the fifth there was a sort of renaissance in which the separate provinces of the Roman empire became strongly differentiated. The age of Justinian could bring about only an external union in the Mediterranean world; it could not exercise a controlling influence on the separate stocks that had branched off.

A Sculptured Table-Top of Christian Times.-In 'A $\rho \chi$. ${ }^{\text {'E } \phi .1914, ~ p p . ~} 70-$ 84 ( 24 figs.) and pp. 260-264 (2 figs.), A. Xyngopoulos publishes a circular slab of marble, probably a table-top, found in Thera in 1866, and now in the National Museum at Athens (No. 2893, diameter 1.14 m .). It is decorated by a sculptured frieze which forms a raised border. This frieze represents wild beasts attacking their prey, with four human heads spaced at equal intervals. This is the best preserved of eight similarly decorated table-tops known to the writer. Another group is decorated with scenes from the Bible. The style shows greater affinity with classical and Alexandrian work than with Byzantine, and is probably a product of Egypt. The heads are probably reproductions of contemporary coin types, and those of the Thera table may with some degree of certainty be identified as portraits of Saint Helena, Crispus, Fausta and the young Constantine, fixing the date of the work in the first quarter of the fourth century after Christ. Whether the table is a product of Christian, or of pagan art cannot be determined.

The Seal of John Doukas Batatzes.-In J. Int. Arch. Num. XVI, 1914, pp. 28-31 (3 figs.), K. M. Konstantopoulos points out that the seal published by G. Schlumberger in R. Et. Gr. 1900, pp. 479 ff ., cannot be assigned to Michael VII Doukas (emperor 1071-1078 A.D.), but rather to John Doukas Batatzes (emperor 1222-1254 A.D.) as the style and method of lettering proves.
The Seal of Nicetas, Metropolitan of Athens.-In J. Int. Arch. Num. XVI, 1914, p. 32, K. M. Konstantopoulos publishes a lead seal acquired by the National Museum at Athens in 1913. He identifies it as the seal of Nicetas, Metropolitan of Athens, who died in 1103.

Saint Thecla.-The actual existence of Thecla, the martyr, is corroborated by an inscription ( $\mu \dot{\alpha} \rho \tau v \rho o s \theta^{*} \kappa \lambda \eta s \mu \nu \dot{\eta} \sigma[\theta \eta \tau \iota$ ) of the latter half of the first century of our era, found at the church of St. Menas, near Lapethus in northern Cyprus. (E. Sittig, 'A $\rho \chi$.' $\mathrm{E} \phi$. 1914, pp. 2-3; fig.)

An Antique Picture Composition in Oriental Christian Variations.-In Mh. f. Kunstw. VIII, 1915, pp. 111-123 (13 figs.), A. Baumstark traces the iconography of authors' pictures. Various classical monuments represent a man seated at the left with his book and accompanied by a standing female figure to the right. This scene is also repeated on a Sidamara sarcophagus fragment in the British Museum. The well known picture of the author with a female personification of Invention, EVPEEIL, in the Vienna Dioscurides and the evangelist Mark with a female figure in the Rossano codex are to be interpreted as readapted survivals. In later Gospels of east Christian type, probably under Syrian influence, the composition shows many forms, the most important and frequent of which represents John dictating to Prochoros, a favorite Armenian subject. The other evangelists are also represented in similar compositions, receiving dictation from Peter, Paul, or an angel, accompanied by the Virgin, or presenting their book to Christ, etc.

An Ancient Origin for Mediaeval Grotesque Figures.-In R. Hist. Rel. LXIX, 1914, pp. 193-206 (10 figs.), W. Deonna points out that the grotesque figures carved on cathedrals and elsewhere during the Middle Ages were not mere fantasies of the artist, but were intended to frighten away evil demons. Such monsters may be traced back to Baubo and other headless figures of antiquity.

Birth in the Middle Ages.-In R. Arch. XXIV, 1914, pp. 266-295, A.

Gascard colletts and discusses the mediaeval miniatures and texts which throw light on the various medical, social, and superstitious practices in connection with childbirth during the Middle Ages, especially in.France.

## ITALY

Sibyls in Italian Art.-In L'Arte, XVIII, 1915, pp. 207-221 (3 figs.), A. Rossi commences her study of the iconography of the sibyl in Italian art with a first installment, beginning with classic times and dealing with the earlier monuments.

Lost Mosaics and Frescoes of Rome.-The fourth of the Princeton monographs in Art and Archaeology is a publication by Professor Morey of drawings contained in the collection of Cassiano dal Pozzo, now in the Royal Library, Windsor Castle. The drawings are by Antonio Eclissi (about 1640). Those selected for publication represent the fresco in the apse of S. Lorenzo in Lucina, the tribune mosaics of Sta. Maria Nuova, the apsidal mosaic of S.Teodoro, the apsidal mosaic of SS. Cosma e Damiano, the frescoes of the oratory of Sta. Pudenziana, the mosaic in Sta. Maria in Trastevere with the fragmentary signature of Pietro Cavallini (restored [hoc op m]us[iv fec]it Petrus [pictor]), . the frescoes in the tribune of Sta. Passera, and five frescoes in the chapel of S. Nicholas in the Lateran. The originals are, with two exceptions (the apse of S. Teodoro and that of SS. Cosma e Damiano), works of the twelfth and thirteenth centuries. The book, therefore, gives valuable information concerning the early part of the "classic renaissance" which preceded (and helped to form) the art of Giotto. [Lost Mosaics and Frescoes of Rome of the Mediaeval Period. By C. R. Morey. Princeton, New Jersey, 1915, Princeton University Press. 70 pp.; 7 pls.; 17 figs. sm. 4to. $\$ 2.00$ net.)

The Gemmed Cross of the Sancta Sanctorum Treasure.-In Röm. Quart. XXVIII, 1914, pp. 222-224, A. Maciejczyk identifies the gemmed cross in the Capella Sancta Sanctorum with the cross of the same description made under Leo IV to replace the one which Charlemagne had presented to Leo III on Christmas 800 and which had been stolen in the time of Paschal I.

The Blue Bowl in the Treasury of St. Mark's.-In Burl. Mag. XXVI, 1915, pp. 140-145 (pl.), M. Conway reproduces the famous blue bowl in the treasury of St. Mark's, Venice, which was brought by the legate Agi Mohammed from the Shah Uzun-Hassan and presented to the Signoria of Venice. On the basis of the decoration with hares it can be assigned to the thirteenth century.

The Statuette of Christ in the Museo delle Terme.-In Röm. Quart. XXIX, 1915, pp. 26-28 ( 2 pls.), P. Styger publishes the newly acquired statuette of Christ of the Terme Museum, Rome (Fig. 3), and shows its similarity to the early sarcophagus type of seated Christ.

Roman and Byzantine Sculpture at Ravenna.-In L'Arte XVIII, 1915, pp. 29-57 (26 figs.), G. Galassi argues for the Roman origin and execution and character of most of the early Christian sarcophagi and other sculptures at Ravenna.

An Early Christian Baptistery of the First Half of the Second Century in the Catacombs of Priscilla.-In Röm. Quart. XXVIII, 1914, pp. 217-221, P. Styger summarizes the researches of A. Profumo (published in Studi Romani, 1913), which show that the room next to the Capella Greca formerly called a piscina stood originally in connection with that chapel and was used as a bap-
tistery. The rite of Infusio was the one practised here in the Roman church of the early second century.

The Twisted Columns of S. Pietro in Vaticano.-In Studi Romani, II, 1914, pp. 347-354, M. Cerrati discusses the twisted columns decorated with vines (columnas intortas et vitibus pulchro opere insculptas) in the basilica of S. Pietro in Vaticano. He concludes that six of the columns go back to the earliest basilica in the latter part of the fourth or the beginning of the fifth century, while six others were added in the eighth century. The columns were all in their original positions at the end of March, 1544, but in subsequent changes of location three were lost or destroyed.

The New Jewish Room in the Christian Museum of the Lateran.-In $N$. Bull. Arch. Crist. XXI, 1915, pp. 13-56 (pl.), G. S. Graziosi publishes the inscriptions, mostly from the Jewish cemetery on the Via Portuense, which are now exhibited on the walls of the new Sala Giudiaca of the Lateran Museum.

Oriental Art on the Early Christian Sarcophagi of Rome.-In Röm. Quart. XXVIII, 1914, pp. 207216, A. D. Waal combats Baumstark's view that the sarcophagus of Junius Bassus and the related one in the Lateran, No. 174, are articles imported from the East. He argues


Figure 3.-Statuette of Christ in Rome that it would be a more reasonable hypothesis that the two sarcophagi, if eastern, were the work of oriental carvers settled in Rome. But the unity of the catacomb decoration tells against the supposition of an eastern school running parallel to the native school at Rome and, as to sarcophagi with sculptured biblical scenes, the results of our finds so far show that the whole Christian Orient practised that form
of interment less than the West and hence would be unlikely to develop the dominating types.

The Cost of San Vitale at Ravenna.-In Felix Ravenna, Fasc. 17, pp. 758760, C. Ricci reduces the cost of San Vitale, as reported in Agnelli, Liber Pontificalis, etc., into terms of modern money and finds that the original outlay was about 400,000 francs, making no allowance for the great change in the value of gold.

Frescoes in the Church of S. Giovanni ante Portam Latinam.-In Studi Romani, II, 1914, pp. 261-328, P. Styger describes the twelfth century frescoes of the church of S. Giovanni ante Portam Latinam, with nine plates and various smaller illustrations.

The Excavations in the Church of Santa Sabina.-In Studi Romani, II, 1914, pp. 329-342, A. MuÑoz gives a preliminary report of excavations conducted in the church of Santa Sabina on the Aventine, and publishes two inscriptions.

The Church of S. Angelo at Perugia.-In Arte e Storia, XXXIV, 1915, pp. 129-140 ( 6 figs.), S. M. Mazzora reviews the involved problem of the origin of S. Angelo, Perugia.

The Cross of Rovenna.-In Arte e Storia, XXXIV, 1915, pp. 56-58 (fig.), G. Gerola writes a note on the bronze crucifix of Rovenna on Lake Como, dating it in the eleventh century and attributing it and the crucifix of Scaria to the same hand.

The Façade of S. Mercuriale at Forli.-In Felix Ravenna, Fasc. 17, pp. 735757 ( 4 pls.), G. Gerola discusses the façade of the church of S. Mercuriale at Forli and its restoration, of which he has charge. The edifice dates about 1200 with later alterations and additions.

The Palazzo Fieramosca at Capua.-In Arte e Storia, XXXIV, 1915, pp. 2-8 (5 figs.), P. Parente writes on the history and present condition of the Palazzo Fieramosca of Capua, built about 1300 and recently saved from ruin by the Italian government.

## SPAIN

The Portals of the Cathedral of León.-In the Boletin de la Sociedad Española de Excursiones XXII, 1914, pp. 255-261, A. d. Piñín y d. Cossío describes the sculptured Gothic portals of the cathedral of Lén. Most of the sculpture dates from the thirteenth century with some additions in later centuries.

## FRANCE

Some Treasures of the Time of Charles the Bald.-In Burl. Mag. XXVI, 1915, pp. 236-241 (2 pls.), M. Conway discusses the golden altar-frontal which Charles the Bald presented to the abbey church of St. Denis. The frontal was melted down at the time of the French revolution, so that a representation of it in the picture of the Mass of St. Giles belonging to Mrs. Stuart Mackenzie and the lengthy description in the manuscript inventory of the treasures of St. Denis are our only records. They suffice, however, to show its points of contact with the Odiot ivory in Berlin (Goldschmidt's Corpus No. 23), a Carolingian South Kensington ivory (Graeven, No. 63), and the gold plaques of the cover of the codex aureus of St. Emmeran's.

The Early Chapel of Sainte Reine at Alise.-In 1913 the Société des Sciences
de Semur excavated a number of tombs at Alise and near them remains of a building dating from the early Middle Ages. In R. Hist. Rel. LXIX, 1914, pp. 207-227, J. Toutain identifies one sarcophagus as that of Regina, daughter of Clemens, who was martyred at Alesia and for whom the modern town was named Alise-Sainte-Reine. The building was the primitive basilica of Sainte Reine whose cult goes back as far as the sixth or fifth century A.D.

## GERMANY

The Wooden Doors of St. Mary in the Capitol, Cologne.-In Burl. Mag. XXVI, 1915, pp. 202-208 (2 pls.), J. T. Perry dates the wooden doors of St. Mary in the Capitol at Cologne in the early eleventh century and shows that they were carefully carved to imitate bronze casting.

## GREAT BRITAIN

Sculptures of the Viking Period.-In Proc. Soc. Ant. XXVI, 1914, pp. 6072 (13 figs.), R. A. Smith calls attention to four carved slabs of the Viking period found a few years ago at Bibury (Gloucestershire) and now in the British Museum.

Statues of Saxon Bishops at Wells.-In the choir aisles of the Cathedral Church at Wells is a series of recumbent figures of Saxon bishops which are interesting for the development of English carving in the west. In Archaeologia, LXV, 1914, pp. 95-112 ( 6 pls.), J. A. Robinson discusses and identifies them. Five of the figures date from the first or second decade of the thirteenth century; the two others from about 1230.

Brooches of an Irish Type.-In Archaeologia, LXV, 1914, pp. 223-250 (4 pls.; 14 figs.), R. A. Smith makes a study of the so-called "penangular" brooches, which he shows are of an Irish type dating from about 500 to 1000 A.d.

The Clephane Horn.-In Archaeologia, LXV, 1914, pp. 213-222 (2 pls.), O. M. Daifon describes the Clephane horn, long preserved in Carslogie Castle, near Cupar in Fife. It is of ivory, $22 \frac{1}{2}$ inches long, with a diameter of 5 inches at the mouth. It is elaborately carved with four zones of figures, charioteers, men hunting rabbits with dogs, men engaged in a contest, and wild animals and animal trainers. The carving is Byzantine in character and may be as early as the tenth century. It is not later than 1204.

The Wheel of the Ten Ages of Life in Leominster Church.-In Proc. Soc. Ant. XXVI, 1914, pp. 47-60 (5 figs.), G. M. Rushforth, with the help of the Arundel Psalter in the British Museum (Arundel 83), identifies a painting in Leominster church as the wheel of the ten ages of life. It consists of a central disk from which radiate ten spokes each ending in a disk. Each disk contained figures representing the different ages of man. The painting dates from the thirteenth century. Another copy, poorly preserved, exists in Kempley church, Gloucestershire.

The Tomb and Chantry Chapel of Henry V.-In Archaeologia, LXV, 1914, pp. 129-186 (7 pls.; 12 figs.), W. H. St. John Hope discusses the funeral of Henry V, and his tomb and chantry chapel in Westminster Abbey.

## RENAISSANCE ART

## GENERAL AND MISCELLANEOUS

The Hieroglyphic Lore of Humanism in the Allegory of the Renaissance.In Jb. Kunsth. Samm. XXXII, 1915, pp. 1-232 (3 pls.; 124 figs.), an extensive study by K. Giehlow on the hieroglyphic lore of humanism in the allegory of the Renaissance and especially in the Triumphal Arch of Emperor Maximilian I is published posthumously by A. Weixlgärtner; the monograph offers a wealth of new and unique material concerning the humanistic movement of the Renaissance and its relation to the contemporary art, particularly Dürer's.

Germanic Wafering-Irons.-In Proc. Soc. Ant. XXVI, 1914, pp. 144-151 ( 13 figs.), W. L. Hildburgi publishes a collection of Germanic wafering-irons of the sixteenth century. The designs upon them consist of the arms of private families, the arms of great reigning families, sacred subjects such as the crucifixion, fanciful designs, inscriptions, and secular subjects such as hunting scenes.

## ITALY

Mythology and Ancient History in Italian Paintings of the Renaissance.In $R$. Arch., fifth series, I, 1915, pp. 94-171 (8 figs.), S. Reinach gives a classified list of representations of scenes from mythology and ancient history in Italian paintings on walls, wood, canvas, and paper earlier than 1580. The form is that of a lexicon. An index of names is appended.

The Imitation of Nature in the Italian Renaissance.-In Z. Bild. K. XXVI, 1915, pp. 163-167, F. Landsberger shows that while all Renaissance Italian writers on the theory of art clung to the doctrine that art is imitation of nature, they actually understood under "imitation" only rarely an illusionistic reproduction, but generally a selective imitation of the beautiful in nature or even a pursuance of those laws which produce the beautiful in nature.

The Meaning of the Camaieus under Raphael's Parnassus.-In Mh. f. Kunstw. VIII, 1915, pp. 10-16 (5 figs.), G.J.Hoogewerff reviews the question of the interpretation of the two paintings en grisaille under the Parnassus of Raphael (Figs. 4 and 5) and concludes that the view of Bartsch, repeated by Wölfflin, is the only tenable one. The left camaieu represents Alexander having his copy of the Iliad deposited in the coffer of Darius; the right, Augustus preventing the burning of the Aeneid. These frescoes date shortly before 1534.

Masterpieces of the Czartoryski Collection, Cracow.-On account of the war a number of the principal treasures of the Czartoryski collection which have been removed from Cracow are now exhibited in the Dresden Gallery. In Z. Bild. K. XXVI, 1915, pp. 145-150 (2 figs.), G. Gronau discusses the Portrait of a Young Man attributed to Raphael and the Leonardesque Girl with a Weasel. The former he sets early in Raphael's Roman period and suggests Johann Ruysch as the sitter. The latter is tentatively attributed to Boltraffio.

A Picture in the Fogg Museum by the "Master of the Innocenti Corona-tion."-In Art in America, III, 1915, pp. 36-40 (3 figs.), O. Siren ascribes three pictures to an artist whom he calls the "Master of the Innocenti Coronation."

One is a painting on panel in the Fogg Museum, Cambridge, which represents the Madonna and Child with Saint Peter Martyr and Saint Francis. In the


Figure 4.-Painting below Raphael's Parnassus


Figure 5.-Painting below Raphael's Parnassus
predella below are the Visitation and the Nativity; the Annunciation is in the pinnacle. The picture after which the writer names this artist is a Coro-
nation of the Virgin in the Ospedale degli Innocenti, Florence, and a third painting assigned to him is a small Annunciation in the collection of Sir Herbert Parry at Highnam Court, Gloucester.

Correggio's Madonna d'Albinea.-In Pagine d'Arte, III, 1915, pp. 23-24 ( 2 figs.), A. Ballettit proves that neither of the two versions of Correggio's Madonna d'Albinea now in the church of Albinea can be the original, as was recently claimed in several writings of $O$. Siliprandi.
Botticelli's Paintings of the Miracles of Saint Zenobius.-In Art in America, III, 1915, pp. 192-195, J. P. Richter shows that the four well known Botticelli panels of the life of Saint Zenobius (for illustrations see A.J.A. XVII, 1913, p. 573), one of which is in the Metropolitan Museum, originally belonged to the Compagnia di San Zenobio at Florence, and apparently a fifth panel representing the burial of the saint has disappeared.
Venetian Paintings in the United States.-In Art in America, III, 1915, pp. 43-55; 104-119; 141-173 (27 figs.), B. Berenson surveys from a historical viewpoint the pictures of the Venetian school in our home collections with important new attributions and criticisms. Works by Caterino, Semitecolo, Michele Giambono, the Vivarini and their school, Carlo Crivelli and his followers are taken up in chronological order and a special chapter is devoted to Antonello da Messina and the numerous minor men who underwent his influence.

Sculptures from Verrocchio's Workshop.-In Art in America, III, 1915, pp. 56-65 (8 figs.), O. Siren writes on four pieces of sculpture in the United States from Verrocchio's workshop. They are a Madonna in marble relief and a terra-cotta bust formerly called Lorenzo de' Medici in the collection of Quincy Adams Shaw at Boston, a painted terra-cotta Madonna relief in the Metropolitan Museum, and another in the Widener collection. The writer discusses also the Verrocchian terra-cotta Madonna in the round in the Victoria and Albert Museum, calling it a Leonardo.

Faentine Majolica in the Museum of Arezzo.-In Faenza, III, 1915, pp. 1-8 (3 pls.), A. Del Vita writes on the Faentine majolica in the Museo della Fraternità dei Laici at Arezzo. The most important piece is a plate made by the Cà Pirota and having a representation within of the School of Athens. Del Vita reads the mark on the back as the initials of Cristofano Scaletti, but the editor in a note shows that they are merely the Pirota mark plus the date 1524 or 1542.

The Pavement of the Chapel of Ser Gianni Caracciolo in S. Giovanni a Carbonara, Naples.-In Faenza, III, 1915, pp. 33-45 (4. pls.), A. Filangieri di Candida pleads for the preservation of the ceramic pavement of the chapel of Ser Gianni Caracciolo in the church of S. Giovanni a Carbonara, Naples. It dates ca. 1427 and is Florentine with a strong admixture of oriental motive.

Drawings by Cesare da Sesto in Relation to his Pictures.-In Burl. Mag. XXVI, 1915, pp. 187-194 (3 pls.), G. Frizzoni studies the album of drawings by Cesare da Sesto (1477-1523), which passed from the hands of Mr. Fairfax Murray into the Morgan collection. Among the forty leaves of pen-drawings there are some related to the following pictures of Cesare: the Madonna of the Brera and the one of the Cook collection, the Budapest Holy Family, the Scotti Baptism, the Adoration of the Magi at Naples, and the Cook St. Jerome. Other drawings may be connected with the Leonardesque Youthful Bacchus
of the Louvre, and with the Berlin Resurrection which came from the church of S. Liberta at Milan and which Cesare might have studied there, though neither he nor any other Italian produced it. Raphael's influence is perceptible in sketches for Saint Michael and for the Temptation in the Garden.

A New Chapter in the History of Italian Majolica.-In Burl. Mag. XXVII, 1915, pp. 28-35; 49-55 (4 pls.), B. Rackham discusses the majolica of Dureta and Siena. Dureta was under strong Sienese influence and a so-called "petalback" group can be attributed to Dureta almost as well as to Siena, though the greater importance of Siena makes it the probable source, Dureta the derivative. But Siena in turn drew upon Faenza for types and the group of drug-pots with the inscription " $\mathrm{B}^{0}$ " seem Faentine rather than Sienese.

Further Light on Baldassare d'Este.-In Burl. Mag. XXVII, 1915, pp. 98-104 (2 pls.), H. Cook repeats former attributions to Baldassare d'Este and makes the following new ones: A Concert from the Salting collection now in the National Gallery under the name of Ercole de' Roberti, an unknown portrait sold in the Abdy sale at Christie's, and the portraits of Giovanni Bentivoglio and his wife in the Dreyfus collection at Paris.

Battistello.-In L'Arte, XVIII, 1915, pp. 58-75; 120-137 (18 figs.), R. Longhi studies the art of the seventeenth century Neapolitan painter, Giovanni Battista Caracciolo, and appends a catalogue of his works.

Raphael's First Master.-In Arte e Storia, XXXIV, 1915, pp. 111-115, L. Fiocca denies that Evangelista da Pian di Meleto could ever have been the teacher of Raphael because there is no sign of his influence in Raphael's early works.

The Youth of Giulio Campagnola.-In L'Arte, XVIII, 1915, pp. 138-156 (18 figs.), G. Fiocco discusses as early works of Giulio Campagnola the series of frescoes of the Life of the Virgin in the Scuola del Carmine at Padua, the Lovers in the Benson collection, two engravings signed I. I. CA., and various small studies; to Campagnola also is ascribed some share in the two Uffizi panels attributed to Giorgione.

The Aspertini.-In L'Arte, XVIII, pp. 81-119 (22 figs.), C. Ricci writes on the Aspertini and summarizes in convenient tables all that is known of their family, chronology, and works; documents are appended.

Paintings Attributed to Lorenzo Monaco in the Vatican Gallery.-In L'Arte, XVIII, 1915, pp. 228-231 (2 figs.), L. Biagi offers his solution of the Lorenzo Monaco problem in the Vatican Gallery. Nos. 78 and 82 show the forms of Lorenzo Monaco badly imitated. In Nos. 75, 76, and 77 the colors are not his. The quality of Nos. 69-74 is far below him. Only two pictures, one representing the Miracles of St. Benedict, the other, St. Anthony Abbot and St. Paul Hermit, are of the master.
S. Anastasia, Verona.-In L'Arte, XVIII, 1915, pp. 157-171 (2 figs.), C. Cipolla continues the publication of his researches concerning the history of the church of S. Anastasia in Verona.

An Attribution to Luca della Robbia.-In Mh.f. Kunstw. VIII, 1915, pp. 147-149 (11 figs.), W. Biehl attributes the female bust, No. 177 of the Museo Nazionale, Florence, to Luca della Robbia, dating it 1440-1450.

The Foundation of Pienza.-In Mh. f. Kunstw. VIII, 1915, pp. 150-165 (4 figs.), R. West gives an account of the life of Aeneas Sylvius Piccolomini, Pope Pius II, and of his transformation of the village Corsignano into the
cathedral town Pienza with the help of Bernardo Rossellino. The cathedral square is very important for students of civic architecture.

The "Mazzocchio" of Paolo Uccello.-G. I. Kern contributes to Jb. Preuss. Kunsts. XXXVI, 1915, pp. 13-38 (18 figs.), a complete analysis of the problems of perspective involved in Uccello's "mazzocchio" drawings and finds that they already imply the geometrical knowledge, probably based on Brunelleschi's researches, which first took systematic form in later treatises such as those of Leon Battista Alberti, Piero della Francesca, etc.

Veronese and Zelotti.-In Jb. Preuss. Kunsts. XXXVI, 1915, pp. 97-128 ( 28 figs.), D. v. Hadele continues his monograph on Veronese and Zelotti (cf. ibid. XXXV, 1914, pp. 168-220) and discusses the Montagnana Transfiguration, the ceiling decoration and wall frescoes in S. Sebastiano at Venice, the Wives of Darius before Alexander in the National Gallery, the portrait of Pase Guarienti, and other single paintings by Veronese; the ceiling of St. Mark's Library by Veronese and Zelotti, and the decoration of the Palazzo Trevisan at Murano; and the works at Praglia and some minor pictures by Zelotti.

## SPAIN

Christian Sculpture in Spain.-In Z. Bild. K. XXVI, 1915, pp. 129-144 (14 figs.), A. L. Mayer gives a general characterization of Spanish sculpture. The art of sculpture in Spain was at all times under strong influence from without; there were employed even more foreign sculptors than foreign painters. Decorative sculpture plays a leading rôle in the history of Spanish architecture and the relations of architect and sculptor were always the closest. The sculpture does not break through the architectural surface but tends to emphasize it or even give the effect of a fretwork spread over it. On the other hand, the polychromy in Spanish sculpture shows how close were the relations of sculptor and painter. Polychromy seems to have been due to Spain's connection with the Orient and to a special development of highly naturalistic sculpture by the church to offset the Mohammedan hostility to images. Religious sincerity and purpose is a specific trait of native sculptors as opposed to foreign sculptors working in Spain.

The Castillo de la Calahorra.-In Boletín de la Sociedad Española de Excursiones, XXII, 1914, pp. 1-28, V. Lampérez contributes a monograph on the origin and architecture of the Castillo de la Calahorra (Granada), which Rodrigo de Mendoza, the first Marqués del Zenete built 1509-1512 as his palatial residence.

Painters to the Kings of Spain.-In Boletin de la Sociedad Española de Excursiones, XXII, 1914, pp. 62-80, 133-160, 219-240, 296-306, and XXIII, 1915, pp. 51-64 (to be continued), F. J. S. Cantón gathers material from Spanish archives and other literary sources and lists and discusses in chronological order each of the court painters of Spain from the thirteenth century, studying the works produced by them in their official capacity.

Felipe Vigarni.-In Boletin de la Sociedad Española de Excursiones, XXII, 1914, pp. 262-274, J. D. Bordona publishes some new documentary notes from an inventory in the Cartuja of Miraflores concerning the sculptor Felipe de Vigarni or de Borgoña and gives a résumé of what has previously been known of this artist. The first notice of Vigarni's activity in Spain is of his employment on the sculptures of the cathedral of Burgos, July, 1498. Later he worked
at Granada, Toledo, Salamanca, Palencia, Valladolid, etc. He died in 1543. Ibid. pp. 275-295, E. Tormo continues the discussion of Vigarni with notes on his choir stalls at Burgos and at Toledo, attributing also to him the recumbent figure of Archbishop Diego de Deza, now in the chapel of the Marqués de Malagon in the cathedral of Seville and the figure of Isabella the Catholic in the Capilla de los Reyes Catolicos in the cathedral of Granada.

Velazquez Studies.-İn Boletín de la Sociedad Española de Excursiones, XXII, 1914, pp. 241-254, V. v. Loga tabulates the results of his studies, most of which have previously been published, on the chronological arrangement of paintings by Velazquez.

The Immaculate Conception.-In Boletin de la Sociedad Española de Excursiones, XXII, 1914, pp. 108-132; 176-219, E. Tormo analyses the dogma of the Immaculate Conception and traces the iconography of this favorite subject through Spanish art.

The Man with the Wineglass by Velazquez.-In Art in America, III, 1915, pp. 183-187 (fig.), A. L. MAYer attributes to Velazquez and dates about 1623 the painting of the Man with the Wineglass from the collection of Sir Prior Goldney, Bart., Derriads, Chippenham, at present the property of Duveen Brothers.

Pictures of Still-Life and Genre Falsely Attributed to Velazquez.-In Mh.f. Kunstw. VIII, 1915, pp. 124-127 (7 figs.), A. L. Mayer shows that two whole classes of "bodegones" are wrongly attributed to Velazquez. The first group kelong to Fray Juan Sanchez Cotan (1561-1627); the second group is not Spanish at all, but Neapolitan and can be attributed in part to Mariano Nani.

Portraits by Sofonisba Anguissola.-The largest of the Tudor portraits in the National Portrait Gallery is the full-length of Philip II, which since its purchase in 1872 has borne the name of Alonzo Sanchez Coello. C. J. Holmes in Burl. Mag. XXVI, 1915, pp. 181-187 (pl.), points out that the picture is not Spanish but Italian and assigns it to Sofonisba Anguissola, the famous woman painter in favor at the Spanish court at the time this portrait was painted, about 1570. The pedigree of the picture before 1872 is unknown. In a later article, ibid. pp. 228-236 (3 pls.), H. Cook determines the vital dates of Sofonisba Anguissola 1528-1625, and besides illustrating her portraits of herself in the possession of the Earl of Ashburnham and of the Earl Spencer and her family portrait from the Raczynski collection, lists as hitherto unrecognized examples of her art a portrait of herself at Nuneham Park, one at Goodwood, one owned by Conte Mayno at Milan, and another, which is a replica of Lord Spencer's picture, in a private gallery at Bologna; a portrait of her father in the Volpe sale, Milan 1910; Nos. 74 and 140 in the Spanish exhibition at the Grafton galleries in 1913; a reduced copy of a Spanish Princess by her in an unnamed English collection and a full-length Philip II in a Scotch collection. A family group in the collection of Lord Methuen at Corsham Court is by Sofonisba or, more probably, by her sister Lucia. The Widower and his Children seem wrongly ascribed to Moroni in the National Gallery at Dublin when compared with the similar picture by Sofonisba in the Hage collection, Nivagaard, Denmark.

The Evolution of Spanish Architecture.-In Boletin de la Sociedad Española de Excursiones, XXIII, 1915, pp. 1-9, V. Lamperez discusses the rapid evolution of Spanish architecture from 1480 to 1520.

Sixteenth Century Art in Huesca.-In Boletin de la Sociedad Española de Excursiones, XXIII, 1915, pp. 10-21, R. del Arco publishes new documents for Damián Forment's retable for the high altar of the cathedral at Huesca and for the retable of the church of San Jorge by the sculptor Juan Miguel de Urliens.

Uclés.-In Uclés. Documentos inéditos y algunas noticias tomadas de sus Archivos, Part III (Cadiz, 1915, Manuel Alvarez. 221 pp.; 11 pls.; 14 figs.), Pelayo Quintero Atauri continues his publication of the documents in the archives of Uclés, Spain (see A.J.A. XVIII, p. 532). They have to do chiefly with the fourteenth, fifteenth, sixteenth and seventeenth centuries and are largely historical in character.

## FRANCE

The Collection of Baron de Schlichting.-In R. Arch. XXIV, 1914, pp. 338-340, Seymour de Ricci gives a brief description of the collection of the late Baron Basile de Schlichting (died August 8, 1914), which is inherited by the Louvre. The collection consists of more than one hundred paintings of the seventeenth and eighteenth centuries, besides a number of fine works of the Italian Renaissance. The French school of the eighteenth century, the Flemish and Dutch schools of the seventeenth century, and Murillo are admirably represented. There are also admirable sculptures of the Renaissance and the eighteenth century.

Note on the Très Riches Heures of Duc Jean de Berry.-In the Très Riches Heures of Duc Jean de Berry in an ellipse having the signs of the zodiac and the months are two human figures back to back in such a way that the face of one shows and the back of the other. In R. Hist. Rel. LXIX, 1914, pp. 183193 , M. Deonna argues that they represent the East and the West, or Day and Night. They may be traced back to ancient prototypes.

## BELGIUM AND HOLLAND

A Picture by Pieter Candid in the Haarlem Museum.-A painting in the city museum of Haarlem representing King David and Saint Cecilia has long been ascribed to Jan Scorel because of the mention of a Saint Cecilia by Scorel in a source of 1573. In Mh.f. Kunstw. VIII, 1915, pp. 81-83 (fig.), O. Hirschmann publishes a contemporary engraving of the picture by Jan Sadeler, who labels it as a work of his companion, Pieter Candid, otherwise known as Pieter de Witte. On the basis of the engraving the picture may also be dated about 1590 .

Jan van Rillaer, the Town-Painter of Louvain.-Apropos of the report of the destruction of Louvain, A. KUHN contributes an article in Z. Bild. K. XXVI, 1915, pp. 81-89 (18 figs.), on the town-painter of the city, Jan van Rillaer (d. 1568). His painting, the Judgment of Solomon, in Berlin, dated 1528 , is a slavish imitation of Lucas van Leyden. The engraving of the Madonna by the Wall is a reversed, feeble copy after Dürer; other engravings, too, show Dürer's influence. Further works discussed are four wings of an altarpiece in the Louvain museum and four panels in St. Pierre. A Beheading of St. Catherine in the Golenistceff-Contouzoff collection, Petrograd, may be assigned to the master, while four other altar wings in the Louvain museum belong to his school.

Jan van der Heyden.-In Z. Bild. K. XXVI, 1915, pp. 181-187 (2 pls.; 6 figs.), W. v. Bode writes a short criticism of Jan van der Heyden (16371712). This artist occupies a place analogous to that of Canaletto.

The "Master of the Mansi Magdalene."-In Jb. Preuss. Kunsts. XXXVI, 1915, pp. 6-12 (pl.; 4 figs.), M. J. Friedländer, taking as his point of departure the Mansi Magdalene in Berlin (No. 574D), reconstructs a master who is dependent on Quentin Metsys for his figures and borrows much of his landscape from Dürer. A dozen paintings are connected with him, including the Saviour (No..90) of the Johnson collection.

Antwerp Mannerists of 1520.-In a study of the Antwerp Mannerists who were active about 1520 (Jb. Preuss. Kunsts. XXXVI, 1915, pp. 65-91; 3 pls.; 8 figs.), M. J. Friedländer groups the numerous pictures, many of which have been wrongly labeled, "Herri Met de Bles," into five groups: (1) the group of the Munich Adoration, Pinakothek, No. 146; (2) the group of the Milan Adoration, Brera, No. 620; (3) the group of the Groote Adoration, Kitzburg; (4) the group of the Antwerp Adoration, Ertborn collection, Nos. 208-210; (5) the group of the Lübeck Altar. The second of these groups and possibly also the first can be connected with Jan de Beer, but the studios which produced the others remain for the present undetermined.

Joost and Cornelis van Cleve.-In the thirtieth installment of his notes on pictures in the royal collections in Burl. Mag. XXVI, 1915, pp. 169-172 (2 pls.), L. Cust is aided by F. J. van den Branden, archivist of Antwerp, who iurnishes a brief biography of Joost and Cornelis van Cleve. Joost van Cleve (ca. 1490-1540) is now generally identified with the "Master of the Death of Mary." His son, Cornelis van Cleve (1520-1567) is the same as "van Cleve the Mad." Of the latter Cust publishes from Windsor Castle a portrait of the painter and one of his wife, as well as a Parmesque Adoration of the Shepherds formerly attributed to Joost van Cleve but resembling more closely the works of Cornelis.

Carel van der Pluijm.-A little known follower of Rembrandt, Carel van der Pluijm (d. 1672) is discussed by J. O. Kronig in Burl. Mag. XXVI, 1915, pp. 172-177 (p1.). The Parable of the Labourers in the Vineyard in the Cook collection had already been attributed to this master and happily a recent restoration has revealed his signature. Other known works by him are a Philosopher in the museum at Leyden, an Oriental Clothed in Red in the collection of Mr. L. Bourgeois in New York, an Old Man Reading in the collection of Dr. Stillwell in New York, and a Money Changer, signed and dated 1659, sold at Christie's, July, 1912.

The So-Called "Young Samson by Rembrandt."-In American Art News, for January 9, 1915, is published a portrait called "Young Samson by Rembrandt" which was recently purchased by Mrs. Robert D. Evans, Boston. L. Cust in Burl. Mag. XXVI, 1915, p. 256 (pl.) questions the attribution and would prefer to call it a portrait of Ferdinand Bol by himself, pointing out at the same time that the picture is not from the Hope collection as alleged but belonged originally to the Metcalfe family, Suffolk.

## GERMANY

Two Illustrations of a German Proverb.-In Burl. Mag. XXVI, 1915, pp. 145-146 (pl.), C. Dodgson illustrates the German proverb, "Der Hoffart sitzt
der Bettel auf der Schleppe," with the familiar painting by Altdorfer in the Kaiser-Friedrich Museum and a small, similarly composed pen and ink drawing by Hans Sebald Beham in the British Museum. The picture is dated 1531 and the drawing is of approximately the same date, but their resemblance is more probably due to some common literary source which inspired them than to the influence of Altdorfer on Beham noticeable elsewhere.

The Ancestry of Albrecht Dürer.-In Burl. Mag. XXVII, 1915, p. 78, F. Haverfield calls attention to a number of considerations which point to the Magyar blood of the Dürer family.


Figure 6.-Margaret of Austria by Konrad Meit In the Hungarian neighborhood from which Albrecht's ancestors came, no German settlements at that date are recorded in the exhaustive compilation of Kaindl. The pastoral occupation of the family was that of Magyars rather than Germans. Dürer cannot be shown to be a German name. None of the Christian names of the family are specifically German; rather they consistently reflect the names of the royal house of Hungary and one, Ladislaus, is distinctly not German but Magyar or Polish. As a matter of fact, Dürer's own cousin was known in Cologne as Niklas the Hungarian.

Konrad Meit of Worms.-In Mh. f. Kunstw. VIII, 1915, pp. 37-45 (14 figs.), W. VöGE revises, mainly in view of numerous publications of V. Nodet, his article, 'Konrad Meit und die Grabdenkmäler von Brou' in Jb. Preuss. Kunsts. XXIX. Vöge repeats his attribution of the Fortitudo with the Column in the Cluny Museum to Meit and points out also that it is reproduced in an engraving of Nicolaes de Bruyn, which attests the high esteem in which the piece was then held. Nodet has greatly increased our knowledge concerning Meit's tombs at Brou, especially by publishing a compilation made by Pater Raphael at the beginning of the eighteenth century from archives now lost. Of the monument to Margaret of Bourbon, besides the figure of the dead, which is in each case by Meit himself, the two putti at the foot and the left one at the head are by the master's hand and only the right one at the head a product of his workshop. These putti date about 1526-1528. The date of the figure of Margaret of Austria (Fig. 6) is given on the border of her robe, 1531, and that must date approximately the two pairs of putti at her tomb. They are the work of pupils, though in the pair at the foot, which Pater Raphael as-
cribes to a brother Thomas Meit, one would like to see the hand of the master, Konrad, himself. The putti at Philibert's tomb are by Benoit de Serins and Onofrio Campitoglio, but here, too, the one with the glove approaches the master's style. Probably he furnished models to all these pupils except Benoit de Serins. Other than these tombs only one large work by Konrad Meit is now preserved, the incomplete Pieta in the cathedral of Besancon.

Drawing with Colored Inks.-In Mh.f. Kunstw. VIII, 1915, pp. 166-169 (fig.), E. Panofsky discusses the colored ink drawings of Virgilius Solis and those of Dürer. The former by attempting to introduce numerous colors in a line drawing destroyed the formal and spatial effects and conventions peculiar to linear work without producing the surfaces and lights belonging to true color work. On the other hand, Dürer, in the designs in various colors of the prayer-book of Maximilian I, by executing each in a single ink retained the abstract character appropriate to the line while enhancing the decorative effect of the pages.

The Wood-Cuts of the Genealogy of Maximilian I by Hans Burgkmair the Elder.-In Jb. Preuss. Kunsts. XXXVI, 1915, pp. 39-64 (16 figs.) H. Zimmermann contributes a study of Hans Burgkmair the Elder's series of wood-cuts of the Genealogy of Maximilian I. The series of seventy-seven cuts in the Vienna Hofbibliothek which was struck off in a single copy for the Emperor himself can be dated with high probability in 1512, but before that date Burgkmair printed numerous artist's proofs of single wood-cuts of the series, which contained in 1510 at least fifteen numbers more than are found in the Emperor's copy. Thirteen of these additional subjects and some early proofs of the seventy-seven in the Hofbibliothek came to the Vienna Hofmuseum from the Ambraser collection. In the royal cabinet of engravings at Stuttgart are four more unique examples, but they illustrate the artist's return to the never fully completed task and date about 1519. Of the stray proofs of the genealogy series in various museums and cabinets there are a dozen (eleven at Wolfenbüttel, one at Berlin) which, without adding any new subjects, have, nevertheless, a peculiar interest because of the rhymes below, which the artist has written concerning the figures represented; the rhyme on the Berlin example could not have been composed previous to 1516. The series of genealogical wood-cuts was copied and imitated in other works of Burgkmair and his followers, so that copies may even be detected in certain cases where the original cuts are lost.

Martin Schongauer's Engravings.-In Z. Bild. K. XXVI, 1915, pp. 105112 (pl.; 5 figs.), M. J. Friedländer makes a general chronological arrangement of the engravings of Schongauer. The first group consists of three obviously less skillful and feebler examples, B. 31, B. 69, and B. 88. The influence of Roger van der Weyden is particularly marked in B. 69. The second group comprises the remaining engravings which bear the vertical $M$; the third group, signed with the pyramidal M, contains his mature works.

The Danzig Painter Daniel Schultz.-In Mh. f. Kunstw. VIII, 1915, pp. 1-9 (14 figs.), G. Cuny gives a brief of the life and works of Daniel Schultz (d. 1683), who is with Andreas Stech one of the most interesting figures of the Danzig school. Stech had a local style influenced by Thomas de Keyser and Pierre Mignard. Schultz is cosmopolitan, taking something from Hals and Rembrandt for his portraits, which were very popular at the Polish court and
in Danzig, and suggesting Snyders and Hondekoeter in his animal painting. He was an accomplished etcher, as is shown by the three sole known examples of this side of his activity in the Dresden cabinet.

## GREAT BRITAIN

Two Well Known English Private Collections.-In Burl. Mag. XXVI, 1915, pp. 241-243, R. C. Witт characterizes and contrasts, apropos of the recent appearance of catalogues, the collection of Sir Frederick Cook and that of Mr. R. H. Benson. The former is a catholic encyclopaedic collection representative of the various schools, periods, and subjects; the latter is a very personal one, practically limited to the Italian quattrocento and cinquecento.

A Flemish Chest in New College, Oxford.-In Archaeologia, LXV, 1914, pp. 113-128 (2 pls.; 5 figs.), Charles Ffoulkes discusses a carved Flemish chest, dating from the early part of the fourteenth century, in New College, Oxford. The scenes upon it represent incidents in the battle of Courtrai fought between the French and Flemings, July 11, 1302.

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Bulletin of the Archaeological Institute of America. One volume annually. beginning in 1910. Each $\$ 1.00$.
Art and Archaeology, a non-technical illustrated magazine. One volume (six numbers) annually beginning July 1914. Subscription, $\$ 2.00$ per annum.
The Argive Heraeum. Published for the Institute and the School at Athens.
The Argive Heraeum. By Charles Waldstein, with the coöperation of G. H. Chase, H. F. De Cod, T. W. Heermance, J. C. Hoppin, A. M. Lythgof, R. Norton, R. B. Richardson, E. L. Tilton, H. S. Washington, and J. R. Wheeler. In two volumes. Large quarto. Boston and New York: Houghton, Mifflin \& Co. Vol. I., 1902; Vol. II., 1905. $\$ 30.00$ for the two volumes, in cloth; $\$ 60.00$, in full morocco ( $\$ 20.00$, in cloth, for members of the Institute and of the Managing Committee; $\$ 44.00$, in full morocco).
The Codex Venetus of Aristophanes. Published by the Institute and the Society for the Promotion of Hellenic Studies.
$\triangle P I \Sigma T O \Phi A N O \Upsilon \Sigma K \Omega M \Omega I \Delta I A I$. Facsimile of the Codex Venetus Marcianus 474. With a preface by John Williame White, and an Introduction by T. W. Allen. Pp. 23 +344 . London and Boston. 1903. $\$ 35.00$, in portfolio; $\$ 36.75$, in half morocco.

[^165]
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Note.-The Papers in Vols. V and VI had previously appeared in the American Journal of Archaeology, First Series, Vols. V-XI.

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The photographic facsimile of this important MS. was undertaken jointly by the Archaeological Institute of America and the Society for the Promotion of Hellenic Studies, with the permission of the Government of His Majesty the King of Italy, and was issued in an edition of two hundred copies in 1902. The most of these have been sold. The price per copy of those that remain unsold is $\$ 35.00$ in portfolio, and $\$ 36.75$ bound in half-morocco.
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The plates, 344 in number, were executed by the collotype process by the Oxford University Press from negatives taken by Signor Bertani of Venice. A full palaeographical introduction by Mr. T. W. Allen, Fellow of Queen's College, Oxford, is prefixed to the facsimile.

Correspondence should be addressed to
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Vol. XIX (1915)
Plate I


BRONZE STATUE IN THE METROPOLITAN MUSEUM

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Plate II


BRONZE STATUE IN THE METROPOLITAN MUSEUM; HEAD


BRONZE STATUE IN THE METROPOLITAN MUSEUM


BRONZE STATUE IN THE METROPOLITAN MUSEUM


BRONZE STATUE IN THE METROPOLITAN MUSEUM

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Plate VI


BRONZE STATUE IN THE METROPOLITAN MUSEUM; HEAD

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American Journal of Archaeology, Second Series Vol. XIX (1915), Plate VIII



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Plate IX


INTERIOR OF CYLIX, DECORATED BY BRYGOS





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Plate XIV


CHRYSELEPHANTINE STATUETTE IN BOSTON; HEAD


CHRYSELEPHANTINE STATUETTE IN BOSTON; FRAGMENTS BEFORE RECONSTRUCTION

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CHRYSELEPHANTINE STATUETTE IN BOSTON; FOUR VIEWS WITHOUT ARMS

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Plate XVII


DIPYLON VASE IN THE METROPOLITAN MUSEUM


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Vol. XIX (1915)
Plate XXII


DIPYLON VASE IN THE METROPOLITAN MUSEUM
EXIERIUK
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CYLIX IN THE MUSEUM OF FINE AR'TS,


CYLIX IN THE MUSEUM OF FINE ARTS, BOSTON; EXTERIOR


Cylix in the museum of fine arts, boston; EXterior, a

Vol. XIX (1915)
Plate XXVI


CYLIX in The museum of fine arts, boston; EXterior, B


FRAGMENTARY CYLIX; BRYN MAWR COLLEGE

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Plate XXVIII


CYlid in the museum of fine arts, boston; COVER

PYXIS IN THE METROPOLITAN MUSEUM

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Vol. XIX (1915) Plate XXX

PYXIS IN THE METROPOLITAN MUSEUM

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[^0]:    ${ }^{1}$ Hist. III, 12, 13, 14, 31.

[^1]:    ${ }^{1}$ The prefect of the Parthian war was L. Furius Victorinus (159-167).

[^2]:    ${ }^{1}$ The split in the neck of Figure 8 appears to have been due to damage done to the relief, probably in the course of taking it down from its original position or setting it upon the arch oi Constantine. The parts above the break are original, not restored.

[^3]:    ${ }^{1}$ See A.J.A. XV, 1911, pp. 349 ff.
    ${ }^{2}$ The museum numbers are 161, 162, 163, 164, 165, 166, 176, 238 and 242. I was unable to obtain any information as to their provenience. Doubtless they are from the immediate neighborhood of Rome; Velitrae, Caere, Praeneste, or one of the Alban towns.

[^4]:    ${ }^{i}$ It would be quite natural to assume that the disk is a schematic aegis. The scales are similar to those on many an aegis. I have been struck by the resemblance which the above design bears to the aegis with central gorgoneion on the coins of Mithradates struck for the cities of Pontus and Pamphylia: Amisus, Cabira, Chabracta, Comana, Amastris, and Sinope. Consult ImhoofBlumer, Griech. Münzen, pp. 37 ff . and Cat. of Greek Coins in the Hunterian Coll. II, pp. 219 ff . The aegis on these coins, however, never has a circular outline, but is six-sided, eight-sided (the usual shape), or even nine-sided.

[^5]:    ${ }^{1}$ The gorgon head is a favorite motif in the centre or ends of tomb gables. It appears, for instance, in a number of the gable façades of the rock-cut tombs in the district of Viterbo: Castel d'Asso, Bieda, Norchia, Sovana. It is carved or painted inside the chamber tombs at Chiusi (Dep. de' Dei, etc.) and Corneto (Tomba della Pulcella, etc.)

[^6]:    Princeton, New Jersey.

[^7]:    ${ }^{1}$ Modern Painters, II, ch. 7.
    ${ }^{2}$ L'Arte in Lucca studiata nella sua Cattedrale, p. 110.
    ${ }^{3}$ Storia dell'Arte Italiana, VI (1908), p. 69.
    ${ }^{4}$ Cicerone, II (1904), p. 462.
    ${ }^{5}$ Italienische Plastik (1905), p. 128.
    ${ }^{6}$ Das florentinische Grabmal (1904), p. 256.
    ${ }^{7}$ Arch. Stor. Arte (1897), p. 72.
    ${ }^{8}$ Jacopo della Quercia (1896), p. 22.
    ${ }^{9}$ La Sculpture florentine, II (1898), p. 35.
    ${ }^{10}$ Histoire de l'Art, III, (1908), p. 540.
    ${ }^{11}$ Vol. II, p. 112, note 1.

[^8]:    ${ }^{1}$ Histoire de l'Art, III, 540.

[^9]:    ${ }^{1}$ La Sculpture florentine, II, p. 35.
    ${ }^{2}$ Jacopo della Quercia, pp. 66, 67.

[^10]:    ${ }^{1}$ Supino, La Scultura in Bologna nel secolo XV, p. 47.
    ${ }^{2}$ Bongi, Le Croniche di Giovanni Sercambi Lucchese.
    ${ }^{3}$ Mazzarosa, Storia di Lucca, pp. 262, 269; Tommasi, Sommario della Storia di Lucca (in A. Stor. Ital., vol. X), p. 296.
    ${ }^{4}$ Carderera y Solona, Iconographia Española, I, pl. 34.

[^11]:    ${ }^{1}$ See Altman, Architektur undOrnamentik der Antiken Sarcophage; Die römischen Grabaltäre der Kaiserzeit. -

[^12]:    ${ }^{1}$ See A.J.A. XIV, 1910, pp. 318-323; XV, 1911, pp. 44-59, 170-194, 386402.
    ${ }^{2}$ Vincenzo Tufo, Storia Antica di Sezze, Veroli, 1908; Filippo Lombardini, Storia di Sezze, Velletri, .1909. The latter is a revision, published by theauthor's son, of his previous work, Della Istoria di Sezze, Velletri, 1876, which I do not cite, as it has been superseded.
    ${ }^{3}$ I have also consulted the following earlier accounts by natives of Sezze: Ciammarucone, Descrittione dellà Città di Sezze Colonia Latina di Romani (1641); Corradini, De Civitate et Ecclesia Setina (1702), and Vetus Latium Profanum \& Sacrum. Tomus Secundus (1705). Other short descriptions of no great value are: Cayro, Notizie delle Città del Lazio Vecchio e nuovo, Vol. II (1816), pp.182-189; Westphal, Die römische Kampagne (1829), pp. 47, 49, 53-4; Marocco, Monumenti dello Stato Pontificio, Vol. VI (1835), pp. 7-66; Moroni, Dizionario di erudizione storico-ecclesiastica, Vol. LXV (1854), pp. 56-81; Fonteanive, Avanzi detti Ciclopici nella Provincia di Roma (1887), pp. 149-152; Abbate, Guida della Provincia di Roma, Vol. II (1894), pp. 499-501; Nissen, Italische Landeskunde, Vol. II $^{2}$ (1902), pp. 645-6; Frothingham, Roman Cities. in Italy and Dalmatia (1910), pp. 72, 80; C.I.L. X. p. 640; Smith's Dictionary of Geography, p. 971; Encyclopedia Britannica, 11th Edition, Setia.

    In citing any of these works, or the works of Tufo and Lombardini, I shall give only the author's name, except in the case of Corradini, De Civitate et Ecclesia Setina, references to which will have the title of the work added, todistinguish them from the more frequent references to the Vetus Latium. American Journal of Archaeology, Second Series. Journal of the

[^13]:    ${ }^{1}$ I am especially indebted for favors to Director Jesse Benedict Carter and Mr. Albert W. Van Buren, of the American Academy in Rome, and to the following citizens of Sezze: Prof. Rag. Cesare Montesi, Secretary of the Commune, Sig. Francesco Diez, Sig. Francesco Lombardini, the brothers Maselli, and Sig. Colombo Pasqualucci.
    ${ }^{2}$ This is the height as given by Lombardini, p. 9; the height given on the Government maps, 319 m ., is to the top of the tower of S. Pietro.
    ${ }^{3}$ For an alleged reference to Setia as one of the Latin confederated towns in Dionys. Hal. V, 61, see Mommsen, History of Rome (English edition), Vol. I, pp. 448-9, n. 1.
    ${ }^{4}$ Vell. Pater. I, 14.
    ${ }^{5}$ Livy, VI, 21.
    ${ }^{6}$ Livy, II, 34.
    ${ }^{7}$ Livy, VII, 42, 8; VIII, 1,1 ff.; VIII, 19, 5 ff.
    ${ }^{8}$ Livy, VIII, 3, 8-9.
    ${ }^{\circ}$ Livy, XXVII, 9, 7, cf. 10, 10.
    ${ }^{10}$ Livy, XXXII, 26, 4-14.
    ${ }^{11}$ Appian, b.c. I, 87. In Plutarch, Sulla, 28, which agrees with the narrative of Appian in other respects, Setia is not mentioned, but Marius, it is said, met Sulla $\pi \in \rho i \Sigma \iota \gamma \nu l \omega \nu$ before his flight to Praeneste.

[^14]:    ${ }^{1}$ This locality has been much changed in recent times by the destruction of an archway and buildings near the church; see Lombardini, pp. 75-6. Corradini, pl. 37, shows its former appearance.
    ${ }^{2}$ For a definition of the term "quasi-ashlar" masonary, see my article in A.J.A. XV, 1911, p. 46, note 6, and p. 51.

[^15]:    ${ }^{1}$ For this style, see the articles cited in A.J.A. XV, 1911, p. 46, note 6.
    ${ }^{2}$ The Lion Gate at Mycenae is an early example.
    ${ }^{3}$ For remains of similar masonry in the territory of Privernum, see A.J.A. XV, 1911, pp. 51-55.

[^16]:    ${ }^{1}$ Mr. Albert W. Van Buren called my attention to these plans, which were made during Mr. Frothingham's survey of this region in 1895, and are now in the possession of the American Academy in Rome. My detailed plan of

[^17]:    ${ }^{1}$ See above, p. 40.
    ${ }^{2}$ Beside the Porta Paolina are two other bits of wall, the exact antiquity of which is too dubious to admit them to the list of fragments.

[^18]:    ${ }^{1}$ Corradini, pp. 35-6; Marocco, p. 11; Fonteanive, p. 151; Tufo, pp. 1921; Lombardini, p. 26.
    ${ }^{2}$ Abbate, p. 499; Tufo, p. 21 . ${ }^{8}$ Westphal, p. 53, suggested this.

[^19]:    ${ }^{1}$ Inscription cited by Tufo, p. 61; see my reading below, p. 53.
    ${ }^{2}$ Lombardini, p. 77. He erroneously, without any proof, puts the temple of Apollo at S. Parasceve (p. 21). Cf. Tufo. pp. 54-5.
    ${ }^{3}$ Tufo, pp. 56-7; Lombardini, p. 23.
    ${ }^{4}$ Not. Scav. 1877, p. 87; cf. Tufo, pp. 203-4; Lombardini, p. 36.
    ${ }^{5}$ Cf. Tufo, pp. 61-2.
    ${ }^{6}$ Corradini, pp. 30-33; Tufo, pp. 59-62, who considers it a circus; Lombardini, p. 25; cf. Westphal, p. 53.
    ${ }^{7}$ See above, p. 39.
    ${ }^{8}$ Corradini, pp. 49-50; Lombardini, p. 20. The inscription on which proof of the cult is based is forged (C.I.L. X, *891); see Tufo, p. 55.

[^20]:    ${ }^{1}$ Ciammarucone, p. 21; Corradini, Vetus Latium, pp. 20-28, De Civitate, p. 11; Fonteanive, p. 151; Abbate, p. 500; Tufo, pp. 52-3 (doubtfully); Lombardini, p. 20. Westphal, p. 53, had already denied the validity of the identification.
    ${ }^{2}$ l.c.
    ${ }^{8}$ The alleged dedication to Saturn is a forgery (C.I.L. X, *902).

[^21]:    ${ }^{1}$ At the point marked 5 on Fig. 10. are parts of three courses of "quasiashlar" masonry 1.50 m . in height, forming two sides of a square foundation that measures 3.80 m . by 3.60 m . Just above this a grass-grown ridge of the ground may indicate the line of the Roman branch road or the old Volscian main road for some distance to the east.

[^22]:    ${ }^{1}$ See above, pp. 38, 39, 41.
    ${ }^{2}$ See above, p. 47.

[^23]:    ${ }^{1}$ See above, p. 41.
    ${ }^{2}$ Lombardini in Not. Scav. 1877, p. 88.
    ${ }^{3}$ Not Scav. l.c.
    ${ }^{4}$ See above, p. 40.

[^24]:    ${ }^{1}$ The distance of the reservoir $h$ from the other remains was not accurately measured, nor could the exact length of the front terrace wall $a$ be determined.
    ${ }^{2}$ Cf. A.J.A. XV, 1911, p. 56.
    ${ }^{8}$ Not Scav. 1877, pp. 87-8. In Not Scav. 1880, p. 142, is an account of a deposit of ex-votos found to the north of the Ponte della Valle.

[^25]:    ${ }^{1}$ See above, p. 42
    ${ }^{2}$ See above, p. 45.

[^26]:    ${ }^{1}$ Lombardini, p. 141, had already read PACoNIVS.
    ${ }^{2}$ For a fuller description of this inscription, see Lombardini, p. 37; he assigns it to the time of Antoninus Pius.

[^27]:    ${ }^{1}$ The second of these inscriptions is given by Lombardini, p. 141, with another fragment, not published elsewhere, which I have not found. It reads: $\ldots . \cdot \mid D E$. SVA. PECVNIA|MANEND. CVRAvIT

[^28]:    ${ }^{1}$ On p. 16 he says: id unum dubitari non potest quin Olympionicarum Statuae posteriorum temporum omnes ad unam aeneae fuerint; on p. 17 he again says: fieri non potest quin existimemus illas statuas omnes ex aere factas fuisse.
    ${ }^{2}$ Ergebn. von Olympia, Bd. V, Die Inschriften von Olympia, p. 235.
    ${ }^{2}$ Pausaniae Descriptio Graeciae, 11, 2, p. 530 (note on Paus. VI, 1, 1).
    ${ }^{4}$ As Hageladas is the first in point of time, who flourished Ol. 70 (see Brunn, Die Griech. Künstler, I, p. 72), Scherer (p. 17) believed that all the statues from his date down, posteriorum temporum, were of bronze; and as Rhoecus and Theodorus, the inventors of bronze founding, flourished Ol. 60 (see Brunn, op. cit. I, p. 34), he believed that bronze might have been used even up to the latter date.

[^29]:    ${ }^{1}$ VII, 27, 5. Scherer op. cit. p. 18, n. 4, also adduces a passage of Aristides, xard $\tau \omega ิ \nu \xi^{\prime} \xi_{0} \rho \chi$. II, p. 544 (ed. Dindorf), which he thinks points to the ex-
    
     to a passage in Dio Chrysost. Orat. 28, vol. I, p. 320 (ed, Dindorf).
    ${ }^{2}$ See Scherer, op. cit. p, 18. n. 3; Vischer, Aesthetik, III, §607, p. 377.
    ${ }^{3}$ See Koehler, Gesam. Schriften, ed. Stephani, VI, p. 345.
    ${ }^{4}$ VI, $1,2$.
    ${ }^{5}$ For these numbers, see catalogue in Hyde, De Olympionicarum Statuis $\dot{a}$ Pausania commemoratis, Halle, 1903, pp. 3-24.

[^30]:    ${ }^{1}$ V, 17, 3 ; here he enumerates images of ivory and gold, the marble Hermes of Praxiteles, an Aphrodite in bronze, etc. Similarly in II, 17, 6, he mentions dedications of different materials in the Heraeum of Argos; in I, 26, 3 he mentions a bronze statue of Olympiodorus at Delphi dedicated by Phocias, but says nothing of the material of one at Athens, where most of the offerings were marble; in I, 28, 1 he speaks of a "bronze" dedication of Cylon on the Acropolis.
    ${ }^{2}$ VIII, 40, 1. I have discussed this statue in A.J.A. XVIII, 1914, 2, pp. 156 ff . 'The Oldest Dated Victor Statue.'
    ${ }^{3}$ For the statue of Agias at Delphi-he was also an Olympic victor-see Hyde, Trans. Am. Phil. Ass'n. XLII, 1912, p. 58; also article 'Lysippus as a worker in Marble,' A.J.A. 1907, 4, pp. 396-416.
    ${ }^{4}$ Cf. Hyde, article in A.J.A. 1914, just mentioned.
    ${ }^{6}$ See Hyde, 'Lysippus as a Worker in Marble' already mentioned.
    ${ }^{\text {- E.g. at Olympia, the Victory of Paeonius in marble stood in the space east }}$ of the Temple of Zeus; See Tafelbd. III, Taf. XLVI-XLVIII and II, Taf. XCIII (basis); Textbd. II p. 153-5; cf. Paus. V, 26, 1. The bronze Aphrodite stood inside the Heraeum, Paus. V, 17, 3.
    ${ }^{7}$ See Treu, Textbd. III, p. 216.

[^31]:    ${ }^{1}$ A full description of these tombs, and of others discovered at the same time, is given in Painted Tombs in the Necropolis of Marissa, published by the Palestine Exploration Fund, 1905.
    ${ }^{2}$ An account of this painted tomb, which was afterwards found, has been given in the second number of Art and Archeology, July, 1914.
    ${ }^{8}$ A limekiln of comparatively recent date will serve for some time as a landmark for locating this tomb, which is about half-way down the hillside below the kiln.

[^32]:    ${ }^{1}$ Loc. cit. pp. 40 and 54.
    ${ }^{2}$ Loc. cit. p. 41.

[^33]:    ${ }^{1}$ Josephus, Antiq. XVII, 4, 2 ff.; Bell. I, 30, 5 ff.

[^34]:    ${ }^{1}$ Op. cit. pp. 52, 54, 65, and 71.
    ${ }^{2}$ Cf. Macalister, The Excavations of Gezer, Vol. II, p. 215, h, 10.
    ${ }^{3}$ Op. cit. pp. 76-80.

[^35]:    :The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Dr. L. D. Caskey, Professor Harold R. Hastinge, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Charles R. Morey, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vhachos, Professor Arthur L. Wheeler, and the Editors, eqpecially Professor Marquand.

    No attempt is made to include in this number of the Journal material published after December 31, 1914.

    For an explanation of the abbreviations, see pp. 118-119.

[^36]:    ${ }^{1}$ Cf. H. Winnefeld, Alterthümer von Pergamon, III, 2, Die Friese des grossen Altars, passim.
    ${ }^{2}$ Cf. e.g. A. Conze, Die attischen Grabreliefs, pl. LXXVIII, No. 320; A. Milchhoefer, zum 42 ten Winckelmannsprogram, p. 3; H. Hepding, Athenische Mitteilungen, XXXV, 1910, p. 495; P. Arndt und W. Amelung, Einzelverkauf, No. 736.
    ${ }^{3}$ This is also the interpretation given by Conze, loc. cit.

[^37]:    ${ }^{1}$ Compare the hair of the Morgan Eros from Boscoreale, now in The Metropolitan Museum of Art.

[^38]:    ${ }^{1}$ On the history of Caius and Lucius see especially A. Pauly's Realencyklopädie, V, p. 845 f . (Wissowa's new edition does not yet include the article on Octavia gens); and V. Gardthausen, Augustus und seine Zeit, I, 3, pp. 1117 ff., and II, 3, pp. 729 ff.
    ${ }^{2}$ I want here to acknowledge my obligation to Mr. J. M. Wulfing of St. Louis, who first suggested the identification of this statue with Caius Caesar and has supplied me with several valuable references.
    ${ }^{3}$ Suetonius, Augustus, 64.
    ${ }^{4}$ Suetonius, Augustus, 64.
    ${ }^{5}$ Dio Cassius, LIV, 26; LV, 8.

[^39]:    ${ }^{1}$ Suetonius, Augustus, 29.
    ${ }^{2}$ Dio Cassius, LV, 6.
    ${ }^{3}$ Suetonius, Augustus, 64; Mon. Ancyr. III, 1 ff.
    ${ }^{4}$ Suet. Aug. 26; Monumentum Ancyranum II, 44 f., III, 1 ff.
    ${ }^{5}$ Cf. Gardthausen, I, iii, p. 1121.
    ${ }^{6}$ Cf. Suet. and Monumentum Ancyranum, loc. cit.
    ${ }^{7}$ Suet. Aug. 29; Ovid, Fast. V, 551 ff.
    ${ }^{8}$ Cf. Dio Cassius, lv, 9.
    ${ }^{9}$ Cf. Cohen, Description des monnaies romaines, I, pp. 181 ff .; Catalogue of the Greek Coins in the British Museum, 6, Mysia, pl. XXVIII, 7; G. F. Hill, Historical Roman Coins, pl. xv, 107.
    ${ }^{10}$ Cf. Cohen, op. cit. I, p. 69, and Gardthausen, op. cit. II, iii, p. 733, 21.
    ${ }^{11}$ Cf. e.g. C. I. G. I, 311, 312; C.I.L. XI, 1421.

[^40]:    ${ }^{1}$ L. e. p. 344. So also Ducati, Brevi Osservazioni sul Ceramista Attico Brigo, p. 88, No. 39. Tonks, Brygos, p. 106, No. 8, calls it palaestric, and Gardiner, Greek:Athletic Sports and Festivals, fig. 175, p. 477, disregards the erotic element.

[^41]:    ${ }^{1}$ Meisterschalen, pp. 381 ff .

[^42]:    ${ }^{1}$ l.c. p. 373.
    ${ }^{2}$ A fragmentary cylix in the Louvre, G 158, with an athletic contest is assigned to Brygos by Pottier, Catalogue, Vol. III, p. 1007, but Mr. Beazley tells me that in his opinion it is by Makron.
    ${ }^{3}$ Annual Report, 1910, p. 62.

[^43]:    ${ }^{1}$ This attitude is frequently represented on Attic vases. Examples are cited by Gardiner, J.H.S. XXIV, 1904, pp. 184 ff., who refers also to the jumpers on a bronze discus in Berlin (Baumeister, Denkmäler, fig. 612) and on one in the British Museum, Catalogue of Bronzes No. 248, fig. 10, Walters, the Art of the Greeks, pl. CV. This figure resembles very closely the one on our vase.
    ${ }^{2}$ Gardiner, l.c. p. 181. To the examples there cited may be added one in Boston. It is, like the others, of lead, and so small that it could be held only by the lower end, unless it was meant for a boy's use.
    ${ }^{3}$ Cf. Gardiner, l.c. p. 181, and in Greek Athletic Sports, p. 299, figs. 61, 62.

[^44]:    ${ }^{1}$ See especially Max Gg. Zimmermann, Oberitalische Plastik im frühen und hohen Mittelalter. Leipzig, 1897, A. G. Liebeskind. Folio.
    ${ }^{2}$ I shall give a full discussion of the entire subject, with quotations from the original documents-including many still unpublished-in my forthcoming book on Lombard Architecture.

[^45]:    ${ }^{1}$ See my article 'Early Rib-Vaulted Construction in Italy' (Journal of the Royal Institute of British Architects, 3rd series, Vol. XX, 1913, p. 553).
    ${ }^{2}$ See my article on 'Acqui' (The American Architect, Vol. CIII, 1913, p. 253).
    ${ }^{3}$ The sculptor of Pontida worked also at Calvenzano.

[^46]:    ${ }^{1}$ I shall here only note that the technical peculiarity of representing drapery folds by means of two parallel slightly incised lines, the most notable point of contact between these three groups of sculpture, is a common and frequently repeated mannerism in ivory carvings from the fourth century onwards.
    ${ }^{2}$ The only documentary evidence in regard to Guglielmo is the inscription between the prophets Enoch and Elijah of the façade of Modena. This inscription reads:

    > DV̄ GEMINI CANCER| CURS̄V CONSENDIT| OVANTES. IDIBVS| IN QVINTIS IVNII SVP TPR| MENSIS. MILLE DE\| CARNIS MONOS CEN|TV̄ MINVS ANNIS.| ISTA DOMVS CLARI| FVNDATVR GEMINI|ANI. INTER SCVLTORES QVAN|TO SIS DIGNVS HONORE. CLA|RET SCVLTVRA NVC VVILIGELME TVA.

[^47]:    ${ }^{1}$ The same arrangement of wings is found in one of the sculptures of Le Mans, with which the angel of Castell'Arquato shows other striking analogies.

[^48]:    ${ }^{1}$ The identification of the Deposition and the capitals in the museum, together with other capitals which have since disappeared, as parts of the ambo was made by the exceedingly careless chronicler, Da Erba. He seems to have had no basis for his statement beyond knowledge of the fact that an ambo previously existed in the cathedral. The capitals may well be fragments of such an ambo, but the Deposition panel is executed in a different marble from the capitals, so that it is difficult to believe that the two could have belonged together. Furthermore, the size and shape of the Deposition panel preclude the possibility that it could have served in an ambo (the long sides of ambos in the twelfth century were regularly bulging) while they are precisely such as would be proper for an altar front. Now the cathedral of Parma claimed, and still claims, to possess half the body of Nicodemus. In the Middle Ages this relic must have been preserved in a special altar, and the fact that we have the chief scene from the life of Nicodemus represented in the Deposition relief leads me to suppose that the panel of Benedetto originally served as the front of this altar. I am confirmed in this supposition by noting that at Bardone a sculptured panel representing the Deposition, closely imitated from Benedetto's relief, was made for (and still serves in) precisely such an altar.

    It is notable that the Depositions of Parma and Bardone represent an iconographical tradition entirely distinct from that which is found current elsewhere in the twelfth century. Nicodemus loosens the hands of Christ, not the feet; numerous personages are represented; a ladder is placed against the cross. This tradition appears in France only in the fifteenth century and has been believed by M. Malle to have been derived from the mystery plays ( $L^{\prime} A r t$ Religieux de la Fin du Moyen Age, p. 50). The Parma reliefs make it seem more probable that the tradition was derived from ivory carvings or miniatures. The unusual subject was perhaps chosen at Parma because Benedetto wished to illustrate, not the Passion of Christ, but the life of Nicodemus.

[^49]:    ${ }^{1}$ They are, however, also partly derived from Benedetto's master, two of whose works are still extant in the museum at Piacenza.
    ${ }^{2}$ This relief has been the subject of a monograph by Federico Patetta ( $D i$ una Scultura e di due Iscrizioni inedite nella Facciata meridionale del Duomo di Modena. -Memorie della Regia Accademia di Scienze, Lettere ed Arti in Modena, Serie III, Vol. VII, 1908, Sezione di Arti, p. 3), but the symbolism has not yet been recognized. Both subjects signify the same thing: the triumph of the Church over the Synagogue. (See S. Paterii Expositio, ed. Migne, Pat. Lat. LXXLX, 712; Isidore of Seville, Allegoriae XXX, ed. Migne LXXXIII, 105; Ibid., Quaestiones in Vet. Testam. XXVII, ed. Migne, LXXXIII, 266; S. Ambrosii, De Jacob et Vita Beata, Lib. II, 2, ed. Migne XIV, 647 etc., etc.)

[^50]:    ${ }^{1}$ For example, he always places Peter to Christ's left, whereas Mr. Frothingham has shown the Byzantine tradition was exactly the reverse.

[^51]:    ${ }^{1}$ Cato, De Agr. 141; Serv. Ecl. 3, 77: see Pauly-Wissowa, s. v.
    ${ }^{2}$ Second Philippic $\$ 40$.
    ${ }^{3}$ See especially the ceremony at Festi, or Roma Vecchia.

[^52]:    ${ }^{1}$ Abbate, Guida dell' Abruzzo, I, 260; II, 138-9, 140, 141. Cf. monograph by De Nino, R. Ac. Lincei, Sept. 1897. The dedication to Livia of an arch would not be unexpected. The Senate voted to build a memorial arch to Livia after her death, but Tiberius appears to have objected to it.
    ${ }^{2}$ Drawings of it were made in the Fifteenth Century by Giuliano da San Gallo, who made a more or less fantastic reconstruction. This is published by Hülsen in his magnificent monograph, Giuliano da San Gallo, and he adds in the text a cut of the arch as it is at present, entirely stripped of its marble facing. I expect to publish a study of this Janus.

[^53]:    ${ }^{1}$ Both of these boundaries may have been marked, probably by arches on the highway and by cippi. The seven-mile limit is mentioned by Isidore as that which could not be overstepped by liberti (!). The ten-mile limit is mentioned by Dio as the line beyond which in 6 A.D. Augustus ordered all gladiators and slaves that were for sale to be expelled. Isidore, who can hardly be made responsible for exactitude of statements, seems to have confused liberti and slaves and it is quite possible that his computation of miles was not the technically exact one from the urbs but the popular one from the densely-populated part of Rome, i.e., from the Mulvian bridge.

[^54]:    ${ }^{1}$ Die Schriften der römischen Feldmesser (1848-52).

[^55]:    ${ }^{1}$ Article in the Wiener Numismatische Zeitschrift，XXVII，pp． 87 ff ．
    ${ }^{2}$ References to Ramsay＇s discussions of the Kodrigai arch can be found in note 1 on page 169.
    ${ }^{3}$ The full caption is $A \triangle P$ ．CEYHPIANHC．TAPCOY．MHTPOTT． ЄN．KOAPIГAIC ．OPOIC ．KIヘIKתN．CЄYHPЄIA，OヘYMПIA ． EПINEIKIA．

[^56]:    ${ }^{1}$ Head, Hist. Num. ${ }^{2}$, Fig. 303.

[^57]:    ${ }^{1}$ Heberdey and Wilhelm, Reisen in Kilikien.
    ${ }^{2}$ Cichorius, Traiansäule, pls. 98 and 101. Cf. Cohen, Trajan, p. 542; Petersen, Traian. Dakerkrieg.

[^58]:    ${ }^{1}$ Poinssot, Bull. Ant. Afr. 1884, p. 373; Cagnat, Rapport, IV, 56, etc.
    ${ }^{2}$ Espérandieu, C. R. de l'Acad. d'Hippone, 1883, VIII, 16; Tissot, Troisième Rapport, p. 6; Bull. Ant. Afric. II, 1885, p. 96, etc.

[^59]:    ${ }^{1}$ C. R. Acad. Insc. 1907 (pp. 466-81), with two maps; cf. Bull. Comm.

[^60]:    ${ }^{1}$ Cagnat, L'armée romaine d'Afrique, I.

[^61]:    ${ }^{1}$ Willebrand, Itinéraire, pp. 135-136; Pococke's Travels, German Ed. 1754, II, p. 259, pl. XXV, 1.
    ${ }^{2}$ Heberdey and Wilhelm, Reisen in Kilikien (p. 19). Cf. Humann and Puchstein, Reisen in Kleinasien und Nordsyrien, and Neumann, op. cit.

[^62]:    ${ }^{1}$ Langlois, in R. Arch. 1857, XIII, p. 481 and pl. 294, who attributes it to the age of Constantine; Ramsay, 'Asiana' in Bull. Corr. Hellen. 1898, p. 237 and London Athenaeum, No. 3953, 1903. Cf. Ramsay's Pauline Studies, pl. XII and 'Cilicia, Tarsus and the great Taurus Pass' in Geographical Journal, 1903; and Cities of St. Paul, pl. II.
    ${ }^{2}$ Heberdey u. Wilhelm, Reisen in Kilikien in the Denkschr. d. Wiener Akad. 1896, Phil. Hist. Cl.

[^63]:    ${ }^{1}$ See Neumann, 'Zur Landeskunde u. Geschichte Kilikiens' in Jahrb. f. Kl. Philologie, 1883, p. 535 ff.
    ${ }^{2}$ Heuzey, Mission Archéologique de Macédoine, pp. 117-120; pl. II.

[^64]:    ${ }^{1}$ Sturgis, Dict. of Architecture I, pp. 305-306. E. Desjardins, Géographie de la Gaule Romaine, I, 173; Atlas, pl. IX.
    ${ }^{2}$ The assumption of the expense by all the towns of the provinces is conclusive proof that the bridge and the arch were a common landmark and not one that belonged to any single town; evidently, then, this was a provincial boundary arch.

[^65]:    ${ }^{1}$ For all these Spanish arches the best description seems still to be that in Laborde, Voyage pittoresque en Espagne.

[^66]:    ${ }^{1}$ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Batgs, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Dr. L. D. Casket, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Profesisor Ceables R. Morey, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. N. P. Vlachos, Professor Arthur L. Weemler and the Editors, especially Professor Marquand.

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    For an explanation of the abbreviations, see pp. 118-119.

[^67]:    ${ }^{1}$ The repairs have been executed with great skill and patience by Mr. Paul Hoffmann at the Museum. For the new right arm we are indebted to Mr. Donald Quigley, a pupil at the Museum Art School.

[^68]:    ${ }^{1}$ B.S.A. IX, pp. 74 ff., figs. $54-57$. The illustration is reproduced from he University of Pennsylvania Museum Journal V, 1914, p. 154, fig. 88.

[^69]:    ${ }^{1}$ Evans, B.S.A. IX, p. 83, has a different explanation of the votive girdles from Knossos. Observing their resemblance to the snakes tied about the hips of the larger faience statuette, he supposes that the girdles had a special ritual significance, and that "the original rolls from which they are copied may actually have contained some form of mummied snake." It is also noteworthy that the double rolls on the votive robes, ibid., fig. 58 , are placed about the hips, not about the waist.
    ${ }^{2}$ The widths are approximately: (1) 2 mm .; (2) and (3) $2 \frac{1}{2} \mathrm{~mm} . ;$ (4) 3 mm .; (5) 4 mm .

[^70]:    ${ }^{1}$ E.g., the smaller of the two faience statuettes from Knossos (Fig. 2); the figures in the unpublished miniature fresco from Knossos representing a religious ceremony in a grove; engravings on gems and gold rings, such as Furtwängler, Antike Gemmen, pl. I, 26; pl. VI, 2, 3. The seated lady on the fresco from Hagia Triada, Mon. Ant. XIII, 1903, pl. X and the lady carrying a cista recently found at Tiryns (Tiryns, II, pl. VIII) might also be cited, though in both cases the decoration of the upper flounce is repeated below. The theory of MacKenzie (B.S.A. XII, p. 20) that the upper flounce is a survival of the primitive loin-cloth to which the jacket and skirt were later added, is a pure conjecture, as Rodenwaldt has observed (Tiryns, II, p. 79).

[^71]:    ${ }^{1}$ Though ivory was much used by Minoan artists in decorative work, e.g., seal-stones, mirror handles, sword-hilts, etc., very few examples of figures in

[^72]:    ${ }^{1}$ A similar statuette from Hagia Triada is reproduced by Mosso, The Palaces of Crete, p. 69, fig. 26. Thiersch cites also a statuette published by Furtwängler, Sitzungsber. der Bayer. Akad. 1899, p. 560.
    ${ }^{2}$ Wide, Ath. Mitt. XXVI, 1901, p. 248, figs. 1-3.
    ${ }^{3}$ Gournia, pl. XI, 1.
    ${ }^{4}$ Wide, l. c., figs. 4, 5; Gournia, pl. XI, 11-13.

[^73]:    $1^{\text {" This is a square headed church that was planned for the order of Ceteaux. }}$ This is the plan of the chevet of Our Lady S. Mary of Cambrai, as it is rising from the ground. Earlier in this book you will find the interior and exterior elevations of it and all the construction of the chapels and walls as well, and the construction of the flying buttresses. This sanctuary Villard of Honnecourt and Peter of Corbie worked out in discussion. This is the sanctuary of S. Faro in Meaux. This is the plan of S. Stephen's church at Meaux. Above is a church with double ambulatory that Villard of Honnecourt and Peter of Corbie found out. I was once in Hungary and stayed there a good while. I saw the pavement of a church after this fashion. This shows how to set up a pillar with attached shafts (?). This is a window in the church of S. Mary of Chartres."

[^74]:    ${ }^{1}$ Figured in Michel, Histoire de l'Art, I, p. 614.

[^75]:    ${ }^{1}$ Le Codex de S. Jacques de Compostela, lib. IV, published by P. F. Fita and

[^76]:    ${ }^{1}$ Figured in Michel, op. cit. II, p. 254.
    ${ }^{2}$ Cf. Michel, op. cit. p. 267.
    ${ }^{3}$ Cf. Street, op. cit. I, p. 216.

[^77]:    ${ }^{1}$ Figured in Michel, op. cit. II, p. 290.

[^78]:    ${ }^{1}$ This portal is very fully illustrated in Serrano-Fatigati's Portadas Artisticas de Monumentos Españoles, Madrid, Hauser y Menet.

[^79]:    ${ }^{1}$ Figured in Baum, op. cit. p. 138, and cf. drawing in Michel, op. cit. I, p. 639.
    ${ }^{2}$ Figured in Michel, op. cit. II, p. 263.

[^80]:    ${ }^{1}$ Wood, Ruins of Palmyra, tab. I, A, C; tab. III-XXI. Of the photographs taken by an American Archaeological Expedition to Syria in 1899-1900 (apply to University Library, Princeton, N. J., U. S. A.) numbers 436-439 (437, 438 reproduced in Butler, Architecture and Other Arts, Vol. II of the Publications of the American Archaeological Expedition to Syria, pp. 50, 51). Bonfils, photo. Nos. 1323, 1325, 1326, 389.
    ${ }^{2}$ Wood, op. cit. tab. XVI.

[^81]:    ${ }^{1}$ Jahrbuch des K. D. Archäologischen Instituts, 1902, p. 113.
    ${ }^{2}$ Am. Arch. Ex. Photo. No. 439.
    ${ }^{3}$ Puchstein, Jb. Arch. I. 1902, pp. 105, 110: see discussion of epigraphical evidence for peribolos.
    ${ }^{4}$ Wood, op. cit. tab. XIX.
    ${ }^{5}$ Journal Asiatique, VIII, 1883, i, pp. 242-244.
    ${ }^{6}$ Butler, op. cit., IV, Palmyrene inscription No. 3, pp. 62-65.
    ${ }^{7}$ Butler, op. cit., IV, Palmyrene inscription No. 4, pp. 62-65.
    ${ }^{8}$ See Butler, op. cit., IV, pp. 61, 62.
    ${ }^{9}$ 'Epigraphische Miscellen,' Sitzb. Berl. Akad. 1887, p. 413, No. 102.

[^82]:    ${ }^{1}$ Butler, op. cit., IV, Palmyrene inscription No. 1, pp. 58, 59.
    ${ }^{2}$ This date is not positively certain. From the corresponding Greek inscription, however, we can be sure that it is of the first century a.d. See Butler, op. cit., III, No. 352.
    ${ }^{3}$ Palmyrene text in Butler, op. cit., IV, Palmyrene inscription No. 2, pp. 5962.
    ${ }^{4}$ Wood, op. cit., Marmor Palm. V; Wadd. No. 2589; C.I.G. No. 4489; Euting, op. cit., No. 103.
    ${ }^{5}$ Jb. Arch. I. 1902, p. 111.
    ${ }^{6}$ Wadd., No. 2580.
    ${ }^{7}$ Puchstein, Jb. Arch. I. 1902, pp. 105, 110.
    ${ }^{8}$ Insc. Sémitiques, Palmyrene inscriptions Nos. 1, 2.
    ${ }^{9}$ Butler, op. cit., IV, p. 61.
    ${ }^{10}$ Wood, op. cit., tab. I, "C," and plan, tab. III.

[^83]:    ${ }^{1}$ Jb. Arch. I. 1902, p. 111.
    ${ }^{2}$ See above, No. 3.
    ${ }^{3}$ See above, No. 4.
    ${ }^{4}$ See above, No. 5.
    ${ }^{5}$ Wood, op. cit., tab. XVII (omits decoration); Bonfils, photo. Nos. 1323, 1326.
    ${ }^{6}$ See Butler, op. cit., pp. 327-334.
    ${ }_{7}$ See Butler, op. cit., pp. 334-340. Dated Rev. Biblique, 1904, p. 581.
    ${ }^{8}$ See Florilegium Melchior de Voguë, pp. 79-91.

[^84]:    ${ }^{1}$ Casts of the entire door are now on exhibition in the Library of Princeton University.
    ${ }^{2}$ De Voguë, Syrie Centrale, Architecture civile et religieuse, pl. 3, "A."
    ${ }^{3}$ Wood, op. cit., tab. XVI.
    ${ }^{4}$ Zeitschrift des Deutschen Palästina Vereins, XXV, 1902, pp. 137, 138.
    ${ }^{5}$ Wood, op. cit., tab. XVIII, "I."
    ${ }^{6}$ Wood, op. cit., tab. XVII, "F."

[^85]:    ${ }^{1}$ Compare details from the temple at 'Atîl, 151 a.d. (Butler, op. cit., pp. 343-6; date, op. cit., III, No. 427a, and C.I.G. No. 4608.); also details from temple at Burdj Bākirhā, 161 a.d. (Butler, op. cit., pp. 67-8; date, op. cit., III, No. 48 and Hermes, XXXVIII, p. 118.)
    ${ }^{2}$ Wood, op. cit., tab. III, IV, and restoration in XIV (the view in tab. IV, giving the conjectured elevation of the exterior, is taken from the interior; and vice versa in tab. XIV).
    ${ }^{3}$ R. Sturgis, Dict. of Arch. III, p. 728. It must be remembered that the upper part of Wood's restoration is entirely a matter of conjecture. See tab. I, "B," for the condition of the entrance at the time of Wood's visit.
    ${ }^{4}$ De Voguë, op. cit., pp. 31-8, also pls. 2, 3, 4; dated by Fr. Savignac, Rev. Biblique, 1904, p. 581.
    ${ }^{5}$ Butler, op. cit., pp. 343-346.
    ${ }^{6}$ Butler, op. cit., pp. 351-357.
    ${ }^{7}$ Butler, op. cit., pp. 351-357.
    ${ }^{8}$ Butler, Revue Archéo’ogique VIII, 1906, pp. 413-423.
    ${ }^{9}$ De Voguë, op. cit., pl. 28, pp. 74, 75.
    ${ }^{10}$ Referred to in Butler, Publications of the Princeton University Archaeological Expedition to Syria, II, A 1, p. $46 .{ }^{*}$
    ${ }^{11}$ Tomb of Elabelos, 103 A.D. See Wood, op. cit., tab. LV "A," LVI, LVII. Location, tab. I "a."

[^86]:    ${ }^{1}$ For the clearest views see the Am. Arch. Ex. Photo. No. 521, taken from the north temple.
    ${ }^{2}$ Durm, Die Baukunst der Etrusker und der Römer, fig. 465.
    ${ }^{3}$ Wood, op. cit., tab. IX, XI.
    ${ }^{4}$ Wood, op. cit., tab. XV.
    ${ }^{5}$ See Marquand, Greek Architecture, fig. 261.
    ${ }^{6}$ Cresy and Taylor, Arch. Antiq. of Rome, pl. LXXIII.
    ${ }^{7}$ Cresy and Taylor, Arch. Antiq. of Rome, pl. LXXXI.
    ${ }^{8}$ Cresy and Taylor, Arch. Antiq. of Rome, pl. LXXXVI.
    ${ }^{9}$ Berthone (Revue des Deux Mondes, 1897, July-Aug. p. 395) says the acanthus was of Greek type.
    ${ }^{10}$ Wood, Ruins of Ba'albec, tab. XXXVII.
    ${ }^{11}$ Jb. Arch. I. 1902, pl. 9.
    12 'Della Scultura ornamentale dai tempi di Roma imperiale al Mille.' Nuova Antologia, 1904 (198), p. 266.
    ${ }^{13}$ Wood, op. cit., tab. XV.
    ${ }^{14}$ Wood, op. cit., tab. XI.
    ${ }^{15}$ Photo. Anderson, No. 1850, reproduced in fig. 55 of Studniczka's Tropaeum Traiani, which see, pp. 93-104, on this point.
    ${ }^{16}$ D'Espouy, pl. 62-64.

[^87]:    ${ }^{1}$ Ep. CXVIIII, i; P. L. XXXIII, col. 200.

[^88]:    ${ }^{1}$ Byz. Z. 1904, p. 222.
    ${ }^{2}$ Dalton, Byzantine Art and Archaeology, p. 191.

[^89]:    ${ }^{1}$ Le Blant, Les Sarcophages chrétiens de la Gaule, pl. XXIX.

[^90]:    ${ }^{1}$ Le Blant, op. cit. p. 47.
    ${ }^{2}$ Cohen, vol. VI, p. 172, No. 568.
    ${ }^{3}$ Venturi, Storia dell'arte italiana,I, fig. 359.

[^91]:    ${ }^{1}$ Garrucci, Storia dell 'arte cristiana, VI, pls. 433-435, inclusive.

[^92]:    ${ }^{1}$ Garrucci, pl. 435, 1.
    ${ }^{2}$ Garrucci, pl. 434, 3.
    ${ }^{3}$ Garrucci, pl. 434, 2.
    ${ }^{4}$ Byz. Z. 1914, p. 222.
    ${ }^{5}$ Garrucci, pl. 435, 1.

[^93]:    ${ }^{1}$ The influence of these Syrian forms is seen in the Ascension on a silver plate from Perm in Russia, which Heisenberg dates in the fifth or sixth century (Heisenberg, Grabeskirche und Apostelkirche, II, pp. 190-191; Bela, KrucifixDarstellung, pl. III.) Here Christ is bearded and stands in a mandorla supported by four angels. Below two groups of the disciples face each other. The Virgin is not present. The figures are stiff and crudely done; the drapery is of the closely fitting Persian type and shows strong Sassanid influence. Above the mandorla appear the sun and moon.

[^94]:    ${ }^{1}$ Venturi, I, fig. 268.
    ${ }^{2}$ Michel, Histoire de l'art chrétien, I, fig. 52.
    ${ }^{8}$ Stuhlfauth, Die Engeln, p. 217.

[^95]:    ${ }^{1}$ Ficker, Darstellung der Aposiel, p. 139. Kraus, Geschichte der christlichen Kunst, II, p. 356. Heisenberg, op. cit. II, p. 199.

[^96]:    ${ }^{1}$ Clédat, C. R., Acad. Insc. 1904, p. 524, fig. 3.
    ${ }^{2}$ Ibid. fig 1.

[^97]:    ${ }^{1}$ Ibid. fig. 2.
    ${ }^{2}$ Ibid. p. 523.
    ${ }^{3}$ Maspero, C. R. Acad. Insc. 1913, p. 290.

[^98]:    ${ }^{1}$ Röm. Quart. XII, pp. 14 ff, pl. II.
    ${ }^{2}$ Strzygowski, Oriens Christ. I, pp. 360 ff.

[^99]:    ${ }^{1}$ Dalton, op. cit. fig. 222. Diehl, Manuel d'art byzantin, pp. 345-347.
    ${ }^{2}$ Heisenberg, op. cit. II, pp. 166-171. Diehl, op. cit. p. 450.
    ${ }^{3}$ Vöge, Elfenbeinwerke (Catalogue of the Berlin Museum), pl. XI.

[^100]:    ${ }^{1}$ Labarte, Histoire des arts industriels, pl. IX.
    ${ }^{2}$ Graeven, Frühchristliche und mittelalterliche Elfenbeinwerke, No. 70.
    ${ }^{3}$ Graeven, No. 55.
    ${ }^{4}$ D'Agincourt, Histoire de l'art, IV, pl. XIII.

[^101]:    ${ }^{1}$ Garrucci, pl. 435, 1.
    ${ }^{2}$ Venturi, II, fig. 463.
    ${ }^{3}$ Pasini, Tesoro di S. Marco, pl. XVII.
    ${ }^{4}$ Dalton, op. cit. fig. 149.
    ${ }^{5}$ Dalton, fig. 150.
    ${ }^{6}$ Dalton, fig. 95.
    ${ }^{7}$ Dalton, fig. 182.
    ${ }^{8}$ Venturi, II, fig. 449.
    ${ }^{9}$ Venturi, III, fig. 651.
    ${ }^{10}$ British Museum: Reproductions of Illuminated Manuscripts, Series I, pl. II: Harl. 1810.

[^102]:    ${ }^{1}$ Weber, Einbanddecken etc. aus Metzer liturgischen Handschriften, pl. XVI.
    ${ }^{2}$ D'Agincourt, op. cit. V, pl. XLIII.
    ${ }^{3}$ Cahier, Nouv. mélanges d'archéologie, III, pl. VI,

[^103]:    ${ }^{1}$ Clemen, Kunstdenkmäler der Rheinprovinz, Kreis Essen, pl. I.
    ${ }^{2}$ Bode, Bildwerke der christl. Epochen (Catalozue of the Berlin Museum), pl. LVIII, No. 462.
    ${ }^{3}$ Laurent, Les ivoires pré-gothıques, pl. XIII.
    ${ }^{4}$ Venturi, II, fig. 162.
    ${ }^{5}$ Graeven, No. 58.
    ${ }^{6}$ Graeven, No. 41.

[^104]:    ${ }^{1}$ A variant of Group $C$ of probably later date is found on an ivory now in the Berlin Museum, formerly in the Spitzer Collection. In this Ascension Christ is drawn horizontally through the air by the hand of God. In his left hand is a scroll. Below on the top of the mountain stand two angels, bending down and pointing to the disciples in the manner of the angels in the Drogo Sacramentary. In the lower plane the disciples and Mary are mingled in a confused group that gazes and gesticulates upward. In the background are two olive trees, which indicate Byzantine influence at work in the formation of the type.

[^105]:    ${ }^{1}$ No. 33. Fleury, L'Evangile, pl. C.

[^106]:    ${ }^{1}$ Graeven, $\cdot$ No. 65.

[^107]:    ${ }^{1}$ Middleton, Illuminated Manuscripts, p. 100.
    ${ }^{2}$ Bruch, Malerei in den Handschriften des Königreichs Sachsen, fig. 8.

[^108]:    ${ }^{1}$ Graeven, No. 50.
    ${ }^{2}$ Lat. 9448. Fleury, L'Évangile, pl. LIV.
    ${ }^{3}$ Aus'm Weerth, Fundgruben der Kunst, pl. X.

[^109]:    ${ }^{1}$ Fleury, L'Évangile, pl. XCIX.
    ${ }^{2}$ Weber, op. cit., pl. XCVI.

[^110]:    ${ }^{1}$ Venturi, II, fig. 251.
    ${ }^{2}$ Vöge, Eine deutsche Malerschule um das Jahr 1000, p. 139.
    ${ }^{8}$ Ibid. p. 146.

[^111]:    ${ }^{1}$ Bibliothèque Nationale: Lat. 18005; Fleury, L'Evangile, pl. XCIV.
    ${ }^{2}$ Vöge, Eine deutsche Malerschule, p. 136.

[^112]:    ${ }^{1}$ Beissel, Des heiligen Bernward Evangelienbuch, im Dome zu Hildesheim, p. 36.
    ${ }^{2}$ Ibid. p. 29. Bibliothèque Nationale, Lat. 819.

[^113]:    ${ }^{1}$ Merton, Buchmalerei in S. Gallen, pl. LXXIX.

[^114]:    ${ }^{1}$ Vöge, Eine deutsche Malerschule, p. 145.
    ${ }^{2}$ Dorez, Les miniatures etc.à Holkham Hall, pl. XIX.

[^115]:    ${ }^{1}$ Cahier, Nouveaux mélanges, etc. II, p. 29.
    ${ }^{2}$ Swarszenski, Salzburger Malerei, pl. LXXI.
    ${ }^{3}$ Ibid. pl. LXXIII.
    ${ }^{4}$ Swarszenski, Regensburger Malerei, pl. XXXI.
    ${ }^{5}$ Swarszenski, Salzburger Malerei, pl. LVIII.
    ${ }^{6}$ Lind, Ein Antiphonarium mit Bilderschmuck in Salzburg, pl. XIII.

[^116]:    ${ }^{1}$ Fleury (La sainte Vierge, p. 231) mentions an Ascension in the Hortus Deliciarum of Herrad von Lansperg, in which Christ stands in a mandorla holding a banner. The mandorla is surrounded by four angels and Mary stands upon a stool in the center of the lower group. This shows the Byzantine influence which manifests itself in many other miniatures of this manuscript.

[^117]:    ${ }^{1}$ Lasteyrie, L'Architecture religieuse en France à l'époque romane, fig. 660.

[^118]:    ${ }^{1}$ Venturi, II, fig. 441.
    ${ }^{2}$ Beissel, op. cit. p. 20.
    ${ }^{3}$ Janitschek, Geschichte der deutschen Kunst, p. 92.
    ${ }^{4}$ Swarszenski, Salzburger Malerei, pl. CIX.

[^119]:    ${ }^{1}$ Ms. 17738. Warner, Illuminated Mss. of the Brit Mus., pl. 15.
    ${ }^{2}$ Vöge, Elfenbeinwerke (Catalogue of the Berlin Museum), pl. XIX.

[^120]:    ${ }^{1}$ I wish to express my thanks to Mr. D. M. Robinson, and to my colleagues, Messrs. Moss and Pease, for Tooking over my notes upon these inscriptions. Acknowledgment of specific suggestions will appear in the appropriate connection.

[^121]:    ${ }^{1}$ The symbol ) must stand for the father's name in the genitive case when it is identical with that of the son. See Larfeld, Handouch der griech. Epigr., 2, p. 535 f . As the examples given by Larfeld here for the use of this particular symbol fall between 50 b.c. and 150 A.D., these dates may be accepted tentatively as the termini for our inscription. Mr. Fowler suggests that at the end of line 8 what I have given as this symbol may be a fragmentary omicron, so that the reading should be $\Phi \iota \lambda \iota \sigma \tau i \omega \nu o[s]$. This may be correct, although I am inclined to believe that the complete Roman name is sufficient. See I.G. III, 1091, where practically all have the father's name but Auplסios
     Фı入окрár $\eta$; 1095 A where of eight gymnasiarchs all have the father's name
     similar conditions.

[^122]:    ${ }^{1} \delta \lambda \epsilon \gamma \delta \mu \epsilon \nu 0 s$ or the equivalent is very rare. Besides the example in Coloss. just quoted I have found only P. Amh. 129, 11 [....] $\mu \iota \sigma \iota(s) \lambda \epsilon \gamma \delta(\mu \epsilon \nu o s)$
    

[^123]:    ${ }^{1}$ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Pıofessor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Frank G. Moore, Professor Cearles R. Morey, Professor Lewis B. Paton, Professor A. S. Pease, Profeseor S. B. Platner, Professor John C. Rolfe; Dr. John Shapley, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

    No attempt is made to include in this number of the Journal material published after June 30, 1915.

    For an explanation of the abbreviations, see pp. 118-119.

[^124]:    ${ }^{1}$ See A.J.A. XVI, 1912, pp. 368 ff., XVII, 1913, pp. 487 ff., and XIX, 1915, pp. 1 ff.

[^125]:    ${ }^{1}$ They may be seen in brief in Mrs. Strong's Roman Sculpture. The promulgator of the Hadrianic theory was Paul Arndt in Bruckmann's Denkmäler, pls. $555,559,560,565$, published in 1903 . The Domitianic theory was presented by Stuart Jones in Papers of the British School at Rome, III, pp. 216271, from a study of the medallions in 1904. This was a great advance on Petersen's monograph in Röm. Mitt. IV, 1889, pp. 314-339, where the Trajanic date is still unquestioned. There is a symposium of opinions of Sieveking, Studniczka, Reinach, Espérandieu, S. de Ricci and Bieber in Revue Archéologique, XV, 1910, pp. 118-129 (with fine cuts of the heads), p. 170; 1911, p. 465. Sieveking published a detailed study in Röm. Mitt. 1907, pp. 365 ff ., in which he made a difference between the medallions on the north side, which he thinks Hadrianic and those on the south which he believes to be Domitianic. This theory was opposed by Miss Bieber in Röm. Mitt., 1911, pp. 214 ff., 'Die Medaillons am Konstantinbogen.' She shows how apparent differences in style between the south and north medallions are only apparent and due to different weathering and to different effects of light and shade which affected the photographs on which Sieveking largely based his opinion. Sieveking's partial retractation appeared in Berl. phil. Woch. 1911, No. 39. To this explanation of apparent differences I would add the greater damage inflicted on the south medallions by fire.

[^126]:    ${ }^{1}$ In the medallion to the left-the Lion Hunt-it is not easy to say whether there may not be a slight blunting because, as the body of the lion both interrupts the frame in any case and also gives a naturally irregular outline, the question is an open one.

[^127]:    ${ }^{1}$ If there had been no friezes already on the main faces of the arch when the triumphal procession was cut into its surface, there is no doubt in my mind that this procession would have started on the left end of the north face and occupied the spaces over the minor arcades. It is quite abnormal that it should be split up as it is; it is so by force majeure, owing to pre-existing circumstances.

[^128]:    ${ }^{1}$ That this was the purpose of these vases was definitely determined by the excavations carried on in Athens in 1891 by Staïs and published by Brueckner and Pernice in Ath. Mitt. 1893, pp. 73 ff . In one instance (cf. pp. 92 ff .) a vase of this type was still found in position; the hollow foot was filled with earth. On this question, see also Poulsen's excellent monograph Die Dipylongräber und die Dipylonvasen (p. 18 f.), which I shall have frequent occasion to quote in this article.
    ${ }^{2}$ For other examples cf. Collignon et Couve, Catalogue des vases peints $d u$ Musée d'Athènes, Nos. 199, 200, 214, 215; Pottier, Vases antiques du Louvre, Nos. A 516, 517.
    ${ }^{3}$ The diameters of the mouths of the vases are respectively $2 \mathrm{ft} .4 \frac{1}{2} \mathrm{in}$. ( 72.3 cm .) and $2 \mathrm{ft} .8 \frac{1}{2} \mathrm{in}$. ( 82.5 cm .).
    ${ }^{4}$ Cf. Poulsen, op. cit. p. 19 and the references quoted by him.

[^129]:    American Journal of Archaeology, Second Series. Journal of the
    Archaeological Institute of America, Vol. XIX (1915) No. 4.

[^130]:    ${ }^{1}$ For other representations on Dipylon vases of funerals and mourners, cf. Collignon et Couve, Catalogue des vases peints du Musée d'Athènes, Nos. 199, 200, 214; Pottier, Vases antiques du Louvre, Nos. A 516, 517, 541; Perrot et Chipiez, Histoire de l'Art, VII, figs. 5, 6; Graef, Die antiken Vasen von der Akropolis, pl. 8, 251, 256.
    ${ }^{2}$ These supports appear to be of turned work; cf. Ransom, Couches and Beds of the Greeks, Etruscans, and Romans, p. 20.
    ${ }^{3}$ It is difficult to decide whether this object is meant for a canopy or a cover. In some cases it is brought down so close to the figure that it seems intended for a cover (cf. Rayet et Collignon, Histoire de la céramique grecque, fig. 19; Collignon et Couve, Catalogue, No. 200). Though this is not the case in our instance, there is no indication of any supports, such as we should expect for a canopy. In the vase described below (p. 394 f.), however, the supports are there.

[^131]:    ${ }^{1}$ Cf. Lécrivain, in Daremberg et Saglio, Dictionnaire des antiquités, under funus, pp. 1370 ff.
    ${ }^{2}$ For an early sixth-century example cf. the pinax in The Metropolitan Museum, published in the Museum Bulletin, October, 1915, p. 208 f., fig. 1, and the Corinthian vase in the Louvre, E 643.
    ${ }^{3}$ Cf. Plutarch, Solon, XXI; Plutarch, Lycurgus, XXVII.

[^132]:    ${ }^{1}$ For other representations on Dipylon vases of chariots and warriors cf. Collignon et Couve, Nos. 214, 215; Perrot et Chipiez, Histoire de l'Art, VII, p. 174, fig. 57; Furtwängler, Archäologische Zeitung, 1885, pl. 8, pp. 131, 139; Perníce, Ath. Mitt. 1892, pl. I, pp. 211, 214, 215, 219; Graef, Die antiken Vasen von der Akropolis $z u$ Athen, pls. $8-10$, passim.
    ${ }^{2}$ For helmets of this shape more carefully drawn cf. Pernice, Ath. Mitt. 1892, p. 211, fig. 2; also Reichel, Homerische Waffen, p. 109 f.
    ${ }^{3}$ This is the regular shape of the shields on Dipylon vases until we come to late examples, where we find a round shield introduced; cf. Reichel, op. cit., p. 48.
    ${ }^{4}$ Reichel, op. cit., p. 124.
    ${ }^{5}$ Some archaeologists have thought that the artist meant to depict a fourwheeled chariot and left out the two further wheels; but the two-wheeled chariot is regular for this period; cf. Reichel, op. cit., p. 120 f.
    ${ }^{6}$ Cf. e. g. the chariots on two Dipylon amphorae in the Metropolitan Museum of Art, published in the Museum Bulletin, February, 1911, p. 33, figs. 6 and 7; also Reichel, op. cit., p. 125.
    ${ }^{7}$ Cf. Archäologische Zeitung, 1885, p. 139.
    ${ }^{8}$ This is the case also in the other Dipylon Chariot scenes; cf. e. g. Helbig, Das Homerische Epos, p. 138. f.
    ${ }^{9}$ Dipylon chariots are represented as being drawn by one (cf. Helbig, op. cit. p. 139, fig. 33), two (cf. e. g. Collignon et Couve, Catalogue, No. 214), or three horses (cf. besides our example, E. Pottier, Vases antiques du Louvre, A. 541).

[^133]:    ${ }^{1}$ Cf. Jb. Arch. I. II, pl. V.
    ${ }^{2}$ Cf. Poulsen, loc. cit.
    ${ }^{3}$ Cf. Wide, Ath. Mitt. XXI, 1896, p. 408; Poulsen, Die Dipylongräber und die Dipylonvasen, pp. 68 ff.

[^134]:    ${ }^{1}$ See two horizontal bands on our vase.
    ${ }^{2}$ See the ornaments in the background of the chariot frieze.
    ${ }^{3}$ See above the mourners and in some of the panels at the back. For primitive geometric parallels, cf. Wide, Ath. Mitt. XXI, 1896, pl. XIV, 1; Myres, op. cit., Nos. 125, 134, 237, 239.
    ${ }^{4}$ Cf. Schmidt, op. cit., pls. VII, VIII, passim. The swastika appears to have been used throughout the world among the most varied people, cf. Poulsen, $o p$. cit., p. 94 f . and the references cited by him.
    ${ }^{5}$ See in the panels at the back of the vase.
    ${ }^{6}$ Cf. Wide, op. cit., pl. XIV, 1 ; Schmidt, op. cit., pl. IX, 5530.
    ${ }^{7}$ Cf. Hawes, Gournia, pl. K.
    ${ }^{8}$ For the dotted circle with centre, cf. Hawes, Gournia, pl. VII, 20, pl. G, 1, Furtwängler und Löschcke, op. cit., pls. VI, 30, XX, 147. For the wheel ornament, cf. the Minoan rosettes enclosed in circles, e. g. Hawes, Gournia; pl. VII, 26, 32.
    ${ }^{9}$ See in the panels at the back of the vase.
    ${ }^{10}$ For circles containing crosses, cf. Furtwängler und Löschcke, op. cit., pls. XXVIII, 231, 232, XXXVII, 279. For concentric circles, cf. Furtwängler and Löschcke, op. cit., pl. XXVIII, 235, 236. For points round the outer circle, cf. Furtwängler und Löschcke, op. cit., pl. XXIII, 171.
    ${ }^{11}$ Cf. British School Annual, IX, 1902-3, p. 319, fig. 19; Monumenti Antichi, I, pl. I; Furtwängler und Löschcke, op. cit., pl. XXXIII, 321.

[^135]:    ${ }^{1}$ Arches form a common ornament in Minoan and Mycenaean art; cf. e. g. Furtwängler und Löschcke, op. cit., pl. XXXII, 308, 312.
    ${ }^{2}$ Cf. Excavations at Phylakopi, pl. XXI, and Furtwängler und Löschcke, op. cit., pl. XXXVII, 380, XXXVIII, XXXIX, passim.

[^136]:    ${ }^{1}$ The posts have not the appearance of turned work as in the other vase, but are of straighter outline; cf. Ransom, Couches and Beds of the Greeks, Etruscans, and Romans, pp. 20, 62.
    ${ }^{2}$ On the extreme right two warriors are represented side by side; the drawing is somewhat confused, but that the artist's object was merely to represent two warriors standing close together is seen by the drawing of the couples of warriors in two of the chariots (see below).
    ${ }^{3}$ This high number of spokes is exceptional for chariots of the Greek mainland; these generally have four, while Ionic and Eastern monuments show the larger number (cf. Reichel, Homerische Waffen, p. 121, and Studniczka, Jb. Arch. I. 1890, p. 147 f.).

[^137]:    ${ }^{1}$ Cf. Poulsen, op. cit., p. 92 f. and the references there cited.
    ${ }^{2}$ Cf. Poulsen op. cit., p. 121.
    ${ }^{3}$ Cf. Poulsen, loc. cit.
    ${ }^{4}$ Cf. Poulsen, op. cit., p. 95.
    ${ }^{5}$ This varnish is the chief heritage which the Mycenaean style left to the geometric; cf. Wide, Ath. Mitt. XXI, 1896, p. 408.
    ${ }^{6}$ Cf. Poulsen, Die Dipylongräber und die Dipylonvasen, p. 79 and the references cited.
    ${ }^{7}$ Cf. Pernice, Ath. Mitt. XVII, 1892, pl. X, pp. 205 ff.
    ${ }^{8}$ Cf. Collignon et Couve, Catalogue des vases peints du Musée d'A thènes, No. 214.

[^138]:    ${ }^{1}$ We find human beings introduced also in late Mycenaean vases, but only in sporadic instances.

[^139]:    ${ }^{1}$ Perrot and Chipiez, Histoire de l'Art dans l'Antiquité, X (1914), pp. 604 ff .
    ${ }^{2}$ Buschor, Griechische Vasenmalerei, München, 1914, pp. 188 ff., cf. ib. pp. 170, 179, 185.
    ${ }^{8}$ I am indebted to the authorities of the Metropolitan Museum and the Boston Museum of Fine Arts for permission to publish vases included in this article. I desire in this place to express my gratitude for this privilege. I

[^140]:    ${ }^{1}$ De Ridder, Cat. des Vases de la Bibl. Nat. II, p. 484, No. 820; Monumenti d. Istituto, I (1829), pl. IX; Annali, 1829, p. 290; De Witte', Elite Céramogr. I, p. 40; II, p. 52; De Luynes, Cat., pl. 27, No. 682.

[^141]:    ${ }^{1}$ Cf. with the youths of this vase esp. Furtw.-Reich. 56, though the work of the Boston vase is of a finer quality.
    ${ }^{2}$ Br. Mus. Cat. III, E. 72; Murray, Designs from Greek Vases in the British Museum, No. 50, pl. XIII, interior; exterior unpublished.

[^142]:    ${ }^{1}$ Hartwig, Meistersch, pls. 54, 55, 56, 1.

[^143]:    ${ }^{1}$ Furtw.-Reich., pls. 55, 56.
    ${ }^{2}$ I find that these cylices have already been pointed out as works of the Penthesilea Master by Furtwängler, Sitzb. d. Münchener Akad. 1905, p. 259, 'Antiken in Amerika.' They were published in the Transactions, University Museum of Pennsylvania, II, Pt. 2 (1907), p. 146, by W. N. Bates.
    ${ }^{3}$ For the designs on these vases, cf. Transactions, 1907, p. 146, pls. XXXVIIXXXIX.
    ${ }^{4} \mathrm{Mr}$. Bates, op. cit., p. 151, figs. 7, 8, mentions this cylix and assigns it to our master. It was sold at auction in Paris in 1903 and its present whereabouts he marks as unknown.

[^144]:    ${ }^{1}$ Gerhard, Auserl. Vasenb. 297, 298.

[^145]:    ${ }^{1}$ Fowler and Wheeler, Greek Archaeloogy, p. 508, fig. 400.
    ${ }^{2}$ Or a nymph, as Mr. Marshall, in a manuscript note, has suggested on the ground that the scene is erotic. I owe the reference to Mr. L. D. Caskey.
    ${ }^{3}$ Hartwig, pl. 50.
    ${ }^{4}$ A.J.A. 1909, p. 145, fig. 4. For anatomical details, see also 15b, Satyrs, and Furtw.-Reich., pl. 5, Achilles; for the hair, Cephalus in 4, I.

[^146]:    ${ }^{1}$ Cf. Maiden in 3a, 3b, Plates XXV, XXVI.
    ${ }^{2}$ Furtw.-Reich., pl. 5, Ajax.
    ${ }^{3}$ I owe this reference as well as the interpretation of the scene, suggested only hypothetically, to Mr. L. D. Caskey of the Boston Museum.

[^147]:    ${ }^{1}$ Fröhner, Annali, 1884, pls. M.N. 205; Hartwig, Röm. Mitt. 1897, p. 91,

[^148]:    Bryn Mawr, Pennsylvania.

[^149]:    ${ }^{1}$ Iliad B, 507 ff .
    ${ }^{2}$ IX, p. 405.
    ${ }^{3}$ IX, p. 406.

[^150]:    ${ }^{3}$ Ath. Mitt. IV, 1879, p. 271, note 2.

[^151]:    ${ }^{1}$ Northern Greece, vol. 2, p. 288. Published in 1835.
    ${ }^{2}$ The one exception was Ross, who, in Wanderungen, vol. 1, p. 98, placed Halae near Proskyna, between that village and Atalante.
    ${ }^{3}$ These were not many. Besides Ross, there were Kutorga (Revue Archéologique, 1860, N. S. 2, pp. 390 ff.), Bursian, Geographie, I, p. 192; P. Girard (see below); Lolling (Baedecker first edition); and Frazer (Pausanias, vol. 5, p. 134).

    4 'Inscriptions from the Acropolis of Halae,' p. 443.
    ${ }^{5}$ Revue Archéologique, loc. cit.
    ${ }^{6}$ P. Girard, De Locris Opuntiis, p. 39. "Hic quotidie indigenae terram fodiunt, antiqua monumenta quaerentes." Girard visited Locris in 1877 and published his thesis in 1881. His statements, taken in conjunction with those of the peasants, prove that an enormous amount of damage has been done.

[^152]:    ${ }^{1}$ Boehlau, Jb. Arch. I., 1888, pp. 325 ff.
    ${ }^{2}$ Pottier, Collignon, and Couve on the plates of their catalogues.
    ${ }^{3}$ De Ridder B.C.H. 1895, pp. 179 ff.
    ${ }^{4}$ Ure and Burrows, B. S. A. 14, p. 227.

[^153]:    ${ }^{1}$ Possibly this was done to save it from corrosion by the sea water in timeof storm.

[^154]:    ${ }^{1}$ See article on 'Inscriptions from the Acropolis of Halae,' p. 444 ff .

[^155]:    ${ }^{1}$ The building was at first thought to be a propylaeum through which one passed from the lower to the upper town, but this opinion has not been confirmed by later evidence.
    ${ }^{2}$ There is a possible indication in the fact that a broken herm was found directly in front of it.; incidentally it may be mentioned that on a large fine style Red Figured vase found in the vicinity, there is represented a scene in a Doric temple before a herm.
    ${ }^{8}$ See article on 'Inscriptions from the Acropolis of Halae,' pp. 439 ff .

[^156]:    Thebes, Greece, May, 1915.

[^157]:    ${ }^{1}$ I.G. VII, 273.
    ${ }^{2}$ Roberts, Introduction to Greek Epigraphy I, p. 230, No. 228.

[^158]:    
    11．13－14，ă $\rho \chi$ оутєs Eüvıкos，Eüклє $\delta \bar{\delta} s, \Delta a \mu о к \lambda \epsilon i \delta a s$.
    
     то仑̂＇A $\boldsymbol{\gamma} \in \lambda$ áov．

[^159]:    ${ }^{1}$ Simonides Iambicus 36.
    ${ }^{2}$ Solmsen, Rheinisches Museum, 1904, p. 481, in his article entitled 'Eigennamen als Zeugen der Stammesmischung in Böotien' gives a long although not complete list of such names and adds: "Der Mangel des $\Sigma$. . . . ist, wie doch einmal bestimmt hervorzuheben verdient, etwas spezifisch westgriechisches."

[^160]:    ${ }^{1}$ I.G. VII, 2813, 2815.
    ${ }^{2}$ Ibid. 247, 255, 273, 278.
    ${ }^{8}$ Ibid. 300.
    ${ }^{4}$ Nos. 2813 and 2815 from Hyettos are inscribed on the same block, and as Dittenberger points out in commenting upon No. 2813, if two archons of the same name had held office at an interval of only a few years, the formula would probably have been expressed as in $2814 \mathrm{~T} \epsilon \mu a \sigma \theta i \omega \tau \hat{\omega} \delta \epsilon \tau \tau \hat{\epsilon} \rho \omega$ or in 2821 Өрабu入ác $\tau \hat{\omega}$ ovortép $\omega$.

[^161]:    ${ }^{1}$ Hoffmann, II, 364; Meisterhans, Grammatik der Att. Inschriften ${ }^{3}$, 24, 14.
    ${ }^{2}$ At Delphi, where the names are also given without patronymics, the Prytany consisted of eight men; S.G.D.I. 2502, 2504, etc.
    ${ }^{3}$ S.G.D.I. 2561 D 16; Homolle, B.C.H. 1895, pp. 46 ff.
     B[ovкá] $\tau \iota a$ H $\eta \rho a i ̂ a, ~ \Delta a \iota \delta a \phi[o ́ \rho \iota a$
    
    
    
    
    
    ${ }^{5}$ I.G. VII, 3191, 3192.

[^162]:    ${ }^{1}$ C．I．G．II，2360， 21 ff ．
    
    
    
    
    
    
    ${ }^{4}$ B．C．H．1901，p． 366.
    ${ }^{5}$ Arch．Anz．1914，p．165，＇Weihungen Thasischer Magistrate $\theta$ ewpol， áто́лоуo．＇
    
    

[^163]:    ${ }^{1}$ I.G. VII, 251.
    ${ }^{2}$ B.C.H. 1902, pp. 333 ff. Jardé and Laurent read:

[^164]:    ${ }^{1}$ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Bates, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A: Buenger, Mr. L. D. Caskey, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Charles R. Morey, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. John Shapley, Professor A. L. Wheeler, and the Editors, especially Professor Marquand.

    No attempt is made to include in this number of the Journal material published after June 30, 1915.

[^165]:    All publications of the Institute and of the Affiliated Schools may be procured through the General Secretary, Archaeological Institute of America, Washington, D. C.; or through The Macmillan Company, 64-66, Fifth Avenue, New York.

